First girl to win A*Star prize

Her research in muscular illness makes her first Indian winner of A*Star Talent Search award

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She is only 18 and doing the final year of her A levels. But Ramyla Rimigovan is deep into medical research.

One day last year, she happened to read about Duchenne Muscular Dystrophy (DMD). This is a muscle degeneration illness that affects one in 3,500 males and symptoms usually appear in boys before the age of five. Those diagnosed with this illness suffer from a lack of dystrophin, a protein that helps keep muscle cells intact.

As a member of the Raffles Institution’s science research programme, Ramyla felt that the topic had great potential to be further explored and investigated scientifically.

Her mentor, Asso Prof Lai Poh San of NUS, liked the idea and encouraged her. That led Ramyla and two of her classmates to spend long hours on research. It was worth it.

Ramyla won the top prize given out by the A*Star Talent Search (ATS) for 2010 on April 23. It was the first time a female student had won the prize since it was set up in 2005. It was also the first time an Indian was winning it. Here’s a creditable achievement considering that a record number of 469 research projects were submitted for the Singapore Science and Engineering Fair (SSEF) and the A*Star Talent Search award this year.

The selection committee picked eight ATS finalists after rigorous screening. The eight were then interviewed by a distinguished panel of judges, headed by Nobel Laureate Prof Barry Marshall and comprized scientists from local universities as well as A*Star research institutes.

Commenting on Ramyla’s win, executive director of the Institute of Materials Research and Engineering and the A*Star Graduate Academy Dr Lim Khang Wee said that Ramyla demonstrated scientific maturity that belies her years in picking the problem to research. In addition to the obviously careful and thorough research that was carried out, she impressed us with her simple but well-thought-out, concise and articulate presentation that brought across the clarity of thought that went into her project.

Dr Lim was one of the judges for the ATS final round.

Ramyla credits her achievement to her mentor Asso Prof Lai. She told tabla: "My mentor was the one who truly believed in me and motivated me, spurring me on to achieve greater heights and excel. She truly is foundational behind my success."

For her achievement, Ramyla got a $5,000 cash award as well as a sponsored trip to an overseas conference of her choice, which she said would most probably be to a paediatrics conference in Europe. In addition, her school was given an award of $10,000. Her fellow team members won other prizes in the SSEF category.

Coming back to her scientific project, I asked Ramyla to explain in simple terms what exactly she did to win the award.

"I basically analysed different compounds called sialylglycosides and their ability to result in the restoration of the production of dystrophin in cells with DMD. It was found that therapeutic levels of dystrophin were produced in these cells with the use of the drug roscovitine, indicating that it can be explored as a potential therapeutic option for DMD," she explained.

The youngest of three children of a lecturer father and clinical pharmacist mother, Ramyla wants to become a medical researcher. Her sister is in university and her brother is doing his NS.

In her spare time, Ramyla volunteers as a letter-writer in need-the-people sessions.

"I help the underprivileged write letters to the authorities so that they will be able to gain the necessary help," says the law student who also volunteers at the United Nations Development Fund for Women to raise awareness about human trafficking.

Going by her enthusiasm and drive, it is not too difficult to guess that this young Singaporean will go places.