

## PORTRAIT OF A RAFFLESIAN FOR THE LOVE OF SCIENCE

In the 17-year history of the Singapore Science and Engineering Fair (SSEF), RGS Year 4 student Chan Hsi-Min is only the second secondary school student and the youngest-ever to be selected to represent Singapore at the prestigious Intel International Science and Engineering Fair (ISEF), which is widely regarded as the Olympics of science competitions. Her project, which is the development of a kit that helps to detect Zika in as quickly as 10 minutes, was the result of an intensive two months of research work before the deadline for submission, as the original project she had intended to submit for the SSEF did not work out so well. However, with determination, passion and a goal in mind to be part of the Intel ISEF delegation, she fought through the long research hours, and together with the help of her mentor and teacher-advisor, turned in the only Gold Award project for RGS at the SSEF this year.

Hsi-Min's love for science is evident, judging by the numerous accolades she has achieved at prestigious science competitions. She also hopes to pursue a MD-PhD in the future, something that marries medicine and research together "in hopes of creating a greater impact on the world", as inspired by her mentors under the Youth Research Programme at the Institute of Bioengineering and Nanotechnology (IBN). We speak to Hsi-Min to find out about the greatest driving force behind her love for science and her RGS experience.

### Early Days of her Research Journey

*"I started research before I turned 12, shortly after my Primary School Leaving Examination. One of my first experiments was dissecting an eyeball, which really was an eye-opening experience! As a kinaesthetic learner, I really enjoyed all the hands-on work research had to offer. I ended up going back to IBN at any chance I could, and gradually, the place became like a second home to me."*

### Interacting With Like-Minded Peers From Around the World

*"Last year, as part of the Broadcom MASTERS International delegate, I had the chance to have a taste of what the Intel ISEF is all about. The environment there is very bustling – everyone wants to show the world what they've done and it felt good to be a part of something that I feel very passionate about. Everyone there had such great ideas on how they want to change the world with science, which is very inspiring. Being able to be a part of that environment again is what I'm most looking forward to at the Intel ISEF."*



The 2016 Broadcom MASTERS international delegation in Arizona.



RGS Year 4 student Chan Hsi-Min will be representing Singapore at the prestigious Intel International Science and Engineering Fair with her project on the detection of the Zika virus in as quickly as 10 minutes using a kit that she has developed.

### Her RGS Experience

*"I've really enjoyed being a student at RGS. The thing that I really love the most is the culture here – it's very vibrant and there's so much school spirit. Even though sometimes people may think that we are very different because we're in an all-girls environment, and that our programmes have a certain level of rigour, I think that's what makes RGS, RGS. We are also provided with a lot of different opportunities to learn through numerous platforms outside the classroom, and the teachers are very inspiring and passionate."*

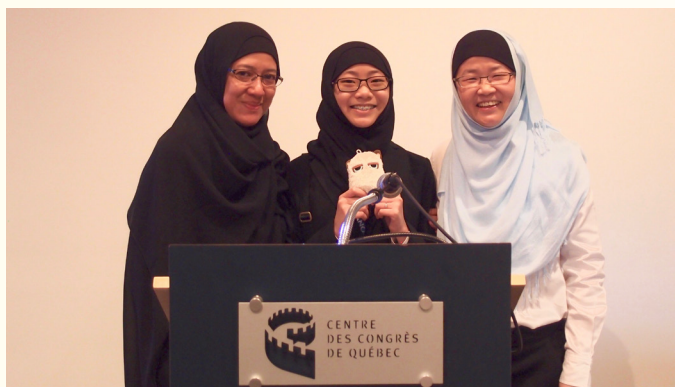


*My close friends never fail to brighten up my school life!*

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### Nurturing a Curious Mind

*“My mum definitely sparked my interest in science since an early age. If I ask her things like “why is such and such like this”, she’d take the time to answer my queries, and if she doesn’t know the answer, she’d make the effort to look into the details and get back to me. She wouldn’t be like “oh, you don’t need to know that”. Through that, she really encouraged my curiosity and nurtured my passion for science, which is great because I think that once you reach a certain age, and you don’t have that kind of encouragement to find out more about the things around you, your level of curiosity tends to either hit a plateau or take a dip. She also used to carry out simple science experiments (like growing sugar crystals) with me when I was younger. Looking back, it must be how she imparted her love for research onto me.”*



*My grandma (left) and my mom with me at my first scientific conference oral presentation at Quebec City in August 2016.*

### Hopes & Wishes for RGS

*“The new campus looks really cool and I hope that the move will be a smooth one. I won’t be a student there, but I am excited about it! The new campus is quite a distance away from our current campus, so while the physical environment will change, I hope that the school culture will carry on and everyone will still embody the RGS spirit.”*

### Learning Through the RP

*“For me, I’m passionate about science. So through the Raffles Programme (RP), it gives me a platform to pursue my passion at a higher level. Besides covering the basics that we need to know about science, it allows me to take my learning to the next level if I want to because it has platforms that cover topics that go beyond the curriculum. Unfortunately, curriculum time is always not sufficient to cover everything there is to know in a subject, but RP encourages me to be curious and a self-directed learner, and to find out how different concepts and subjects can be linked together etc. Being part of the Youth Research Programme also gave me an opportunity to experience life among researchers, as a ‘junior researcher’. Research is an applied version of what we learn in school and shows the vastness and beauty of science. It’s not just about the end result, but the process that I enjoy the most.”*



*SSEF 2016: With my teacher-mentor, RGS teacher Mr Shaun De Souza (left), my research mentor, Dr Soh Jun Hui from IBN, as well as Harambe, my ‘lab partner’.*