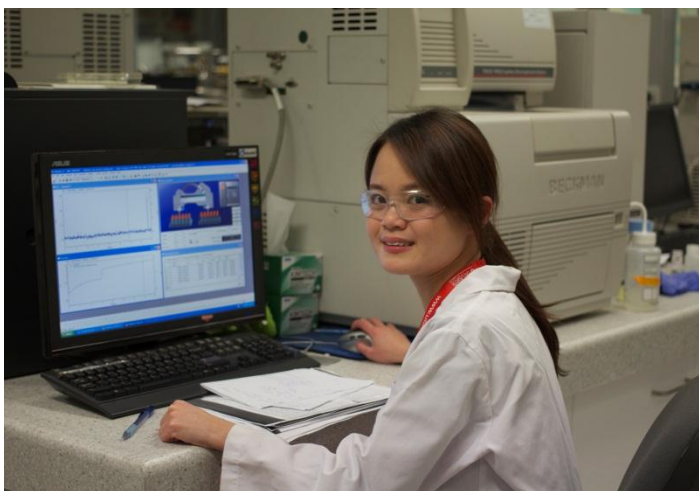


# national science week 2014

## Sui Ching Phung

### Analytical Chemist



I started to gain a passion for science when I visited a famous science discovery centre called Petrosience, in Malaysia where I grew up. I remember how excited I was in the exhibition when I found out that using a zip lock bag, newspaper, milk, ice and a cloth I could make ice cream. Since then, my interest in science has grown.

Because science is so diverse, encompassing such a wide range of areas and because it is still filled with possibilities and discoveries, I was inspired to study chemistry,

biology and physics in high school. After completing primary and high school, I enrolled in a degree in Medicine, and it was then that I realised I enjoyed DNA studies and instruments so I transferred to a Bachelor of Biotechnology. This allowed me to learn more about DNA and further exposed me to a variety of areas such as biochemistry, genetics, microbiology and pharmacology.

During my bachelor degree, I was fortunate enough to do a real research project, and was also awarded a summer research scholarship, so I was able to get lots of practical experience. The project I did during my undergraduate involved analysing whole cells of *E. coli* using nucleic acid dye. I was given the opportunity to learn how to design microchips and to stain whole cells. The best part of this project was watching the *E. coli* fluorescing. I decided to continue this work for my honours research as well because it was so interesting. As for the summer research, I ventured into a completely different area where I had to analyse 15 different anions and cations, which are special types of atoms or molecules.

Currently, I am in the second year of my PhD project at the Australia Centre for Research on Separation Science in UTAS. I am developing a new way to quickly identify bacteria. Until now it has always taken scientists 1 to 2 days to identify bacteria from different types of samples, but the method that I'm developing will mean that we can do the same thing in less than one day! This is important because it will save a lot of time. For example, if you are sick you don't want to have to wait a couple of days before you know which medicine is the right one for you.

**For more information:** [www.utas.edu.au/chemistry](http://www.utas.edu.au/chemistry)

[www.YoungTassieScientists.com](http://www.YoungTassieScientists.com)