



national science week 2013

Emer Duffy

Analytical Chemist Australian Centre for Research in Separation Science (ACROSS)

I chose to become a scientist because I love to learn and I really enjoy a challenge. Science is an exciting, hugely diverse and ever-changing field that offers us a chance to find answers, be creative and challenge ourselves. I love the creative freedom that research offers, and the excitement a new discovery in the lab brings.

For my undergraduate degree I studied a Bachelor of Science with Honours in Analytical Science at Dublin City University in Ireland. Over the course of these four years I had the opportunity to live and study in Germany and America as part of my degree. Spending a year studying and doing research at the University of Kansas, USA, was a huge highlight. I had the chance to experience life in a new country, meet some amazing scientists and carry out research in bio-analytical chemistry, learning how to design and make microchips with an end application in studying micro-dialysis brain samples from sheep. While in Germany I worked on making fluorescent dyes, which were being used for imaging biological samples in the local hospital. I completed my Honours year back in Ireland where I joined a separation science group and worked on portable devices for preparation of environmental samples for testing, such as river water samples.



After completing my Honours degree in Ireland, I moved to Hobart to start my PhD at the Australian Centre for Research on Separation Science at the University of Tasmania. My research is focused on an interesting new material called nano-diamond, which has some of the favourable properties associated with normal diamonds, such as stability and strength. It is proving to be useful in many different areas of science, including medical science, material science and separation science. There is still much to be understood about nano-diamond so there is lots of room to make new discoveries in the lab, which makes this an exciting area to work in.

In these last few years I have experienced the amazing diversity that a career in science can offer, and enjoyed the opportunities for travel around the world that come with it!

For further information: www.utas.edu.au/across