

# national science week 2013

## Jennifer Bannan

Immunologist

Menzies Research Institute Tasmania



As a child I had a natural love of animals and the environment. I was keen to know how things grew, how mountains and volcanoes formed, how the solar system worked, how plants photosynthesized and cells divided, how mammals had evolved and why dinosaurs became extinct.

I was good at science in high school. I loved biology and chemistry and by Year 12 I had become quite interested in genetically modified organisms. So it was a logical step for me to study science at University. I majored in Biochemistry and Molecular

Biology and by third year I had developed an interest in the immune system and how it worked at a cellular level. I then decided to do an Honours degree in Cellular Immunology and have now begun a PhD in the same field.

The immune system is one of the most important systems of our bodies. It consists of cells and proteins that work together to protect us from pathogens such as bacteria and viruses that we come into contact with every day. It is a very complex system and when it breaks down it can lead to a multitude of problems such as allergies, cancers, autoimmune diseases and immunodeficiencies. My PhD project specifically looks at the function of a protein expressed by B lymphocytes – these are the cells that are responsible for producing the antibodies that destroy foreign pathogens. Not only does my research contribute to our current understanding of how the immune system functions, it has important implications for the development of autoimmune diseases.

My parents were, and still are, the most important influence in my life – they have encouraged and supported me in my endeavour to learn more. I am currently in the final year of my PhD and whilst it has been challenging, it has also been very exciting. In the future I would like to continue working in a medical science related field, but perhaps in a more applied sense. I am interested in becoming involved in IVF, vaccine development or perhaps in working as a scientific adviser.

Science provides explanations for the world around us – that's what I love about it!

**For further information: [www.menzies.utas.edu.au](http://www.menzies.utas.edu.au)**