



## CERI LYN-ADAMS

### A 'GUESS WHAT' MOMENT

POSITION

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RESEARCH AREA

TRANSLATIONAL MEDICINE



## SNAPSHOTS OF SCIENCE 2010

What does the image show?

The eye of a fruit fly at high magnification! The 'bumps' are individual lenses (ommatidia); each fruit fly contains 700-800 of them interspersed with bristles. Many years of research has developed tools allowing us to express (make) proteins in the eyes of fruit-flies. Proteins are necessary parts of our body, but some proteins are linked to specific diseases. The structure of wild-type fruit fly eyes is very organised and regular; expression of disease related proteins can cause disruption to this structure. By looking at the eye structure we can gain an insight into the interactions between the proteins, and hence how diseases progress.

What got you interested in this area of science?

My Grandfather died ten years ago from a brain degenerative disease that was diagnosed in the latter part of his life as Alzheimer's. It was excruciatingly painful to witness such a proud man suffering the humiliation of losing his mind and cognitive functions. I was fourteen years old when he died and I resolved that in the future I wanted to do something, anything, to help those suffering from such a terrible affliction. This has driven me to become a research scientist, through my research I strive to make a difference in the field of Neuroscience and in particular neurodegenerative research.

What does your research hope to achieve?

My project, funded by the Alzheimer's Research Trust, is developing this experimental technique as a way of testing new molecules and proteins that affect brain function, including drugs that may help to prevent some of the basic biochemical problems linked with Alzheimer's disease. This approach will help to direct drug development programmes, meaning that only the most promising candidates need be tested in animals such as rodents and speeding up the development of effective treatments for humans.