**MEDIA RELEASE** **TUESDAY JUNE 2, 2015**

## ACT's INNOVATIVE INVESTIGATORS PRESENT THEIR FINDINGS

### NEW INVESTIGATOR FORUM – FINKEL THEATRE, JOHN CURTIN SCHOOL OF MEDICAL RESEARCH

### Could a sugar actually prevent diabetes?

Think of diabetes and the first thing that usually comes to mind is too much sugar. However researchers at ANU are finding that there is one type of sugar that might actually prevent the progression of type 2 diabetes. Sarita Dhounchak and colleagues have found that heparan sulfate, a complex sugar that is essential for survival of insulin-producing beta cells in the pancreas, is produced in insufficient amounts in diabetes. In a promising sign for diabetes patients, the team have recently discovered that replacing this sugar can rescue beta cells from dying, paving the way for a potential treatment for type 2 diabetes.

### Lighting the way to a short-sighted solution

Recent media articles have highlighted the increasing prevalence of myopia, or nearsightedness, among students who spend large periods indoors. This observation is supported by recent experimental evidence from the University of Canberra, which shows that increasing levels of light intensity prevents the development of myopia. Cindy Karouta and colleagues exposed chickens with myopia to different intensities of light, finding that myopia was completely abolished at the highest light intensity. This study adds further weight to the public health campaign for children to spend more time outdoors.

### 'Tis the season to be itchy

Astrology is built on the idea that a person's date of birth determines their personality. While it's now well accepted that astrology has no scientific basis, the idea that someone's date of birth has a long-lasting influence might not be as kooky as it sounds. Gabrielle Lockett and colleagues have observed that the season in which someone is born influences their risk of suffering allergies – for example children born in autumn have an increased risk of eczema, an inflammatory skin condition. Exploring possible reasons for this, Lockett has discovered that season of birth can influence the methylation of DNA, which determines how certain genes are used. These findings go some way to explaining how seasonal changes in environment can influence the long-term risk of various allergic diseases.

### Interview and Photo Opportunities

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