

## Starting Puberty with a Kiss

Although at times it can be embarrassing and uncomfortable, puberty represents an important transitional period in our lives, during which we develop our adult bodies and gain the capacity to reproduce. Remarkably, though, very little is actually known about what triggers this transition from childhood to adulthood.

Professor Allan Herbison, from the School of Medical Sciences at the University of Otago, has been awarded a Marsden grant to investigate this phenomenon in more detail. Specifically, Professor Herbison will build on a very recent discovery that one particular molecule – a small protein appropriately dubbed kisspeptin – can initiate puberty.

Studies have suggested that kisspeptin could start puberty by activating a small group of cells in the brain, known as ‘GnRH neurons’. When these cells are activated, the diverse processes that allow us to become adults begin. This role of kisspeptin was suggested by studies of human families with genetic mutations that mean that they cannot make use of kisspeptin. Individuals with the mutation do not go through puberty and are, consequently, infertile.

Professor Herbison’s research is aimed at investigating in detail whether kisspeptin really is responsible for activating GnRH neurons to initiate puberty. He will use pre-pubescent mice to determine the precise impact of this molecule on the brain and, in so doing, begin to understand the molecular events that underlie the onset of puberty.

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