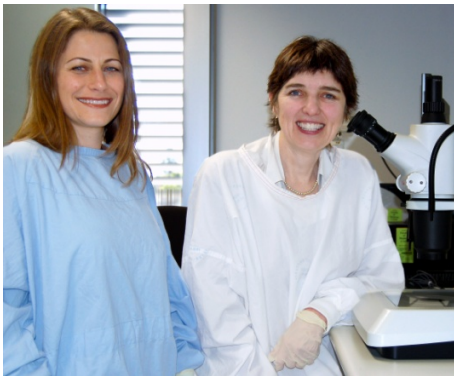


RESEARCHER SUCCESS STORIES 2011

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A BREAKTHROUGH IN THE FIGHT AGAINST CANCER!



AS A CURE CANCER SUPPORTER YOU SHOULD FEEL PROUD OF AN EXCITING BREAKTHROUGH ANNOUNCED IN AUGUST.

Working within a talented team of scientists, former Cure Cancer Australia Grant Recipients, Professor Robyn Ward and Dr Megan Hitchins have found a genetic mutation responsible for making people susceptible to colorectal, bowel and other cancers.

Robyn and Megan were part of a study of three generations of a large family who developed colorectal cancer at a young age.

- The family did not have the genetic mutations normally linked with the cancer.
- However, several members from all generations had a biochemical tag that switches off the anti-cancer gene MLH1.
- A mutation was discovered near the gene that attracted this tag.
- This DNA change was then passed on to the next generation.

Professor Robyn Ward (picture above on the right) is the head of the adult cancer program at the Lowy Cancer Research Centre at UNSW and co-leader of the study. A Cure Cancer Australia Grant Recipient in 1994 & 1997, Robyn says “this research is very exciting because it identifies a new way cancer is inherited.

While we were always suspicious that these individuals probably have underlying ‘spelling mistakes’ in their DNA, we hadn’t actually been able to find the exact spelling mistake that was causing the cancer.”

UNSW's Dr Megan Hitchins (pictured on the left) and a Cure Cancer Grant recipient in 2005 & 2006, also led the study. According to Megan, “this subtle spelling mistake in front of the gene literally served like a magnet to attract a biochemical called methylation which then turns the gene off,” she said. “But in this family, attracting the methylation to sit on top of their gene and turn it off is actually an error, because that gene, because of its anticancer properties, is meant to be switched on.” Megan says “Our team is very grateful for the support we have received from Cure Cancer Australia in the past”.

This discovery **may help to diagnose families at risk of hereditary cancers**, and potentially allow treatment to switch a vital anti-cancer gene identified back on. Important breakthroughs such as this are only made possible by the dedication of scientists like Robyn and Megan who have devoted years of hard work and patience to their projects.

By investing in Australian researchers when they need our support early in their careers, you help them realise life saving breakthroughs for the future.