

SA SPOTLIGHTS HEALTH & MEDICAL RESEARCH - YOUNG SCIENTISTS SHINE

THE AUSSIE BBQ - RED MEAT OR POTATO SALAD?

Colon cancer risk could be lowered by resistant starch – the type of starch in foods such as potatoes, pasta and rice, which resists digestion. Dietary factors are an important reason why colorectal cancer rates are higher in Western countries like Australia. High consumption of red meat is associated with a higher cancer risk and induces DNA damage in the cells lining colon. New research by *Jean Winter*, at *Flinders University*, has shown resistant starch lowers the risk of DNA damage from meat protein. “Interestingly, if these foods are cooked then cooled it changes the structure of the starch, producing higher levels of resistant starch – so cold potato or rice salads have more resistant starch than hot rice or potato,” said Ms Winter.

PARENTS AND CHILDREN

FAT PROOFING YOUR DAUGHTER!

Female children of mothers who were obese around the time of conception are at increased risk of developing obesity in adolescence. *Leewen Rattanaray* from the *University of South Australia* has shown in a sheep model of human obesity that this risk can be avoided with a sensible, restricted diet before and around conception.

MUM’S HIGH FAT DIET AND PROSTATE CANCER

There are more prostate abnormalities in the adult offspring of mothers fed a high fat diet during pregnancy, according to research in rats by *Karen Chiam* and *Siti Zulkifli* from the *University of Adelaide*. The abnormalities may be linked to a higher risk of prostate cancer. Determining whether a mother’s nutrition is associated with an increased cancer risk in her children will have implications for the management of cancer, since the rate of maternal and general obesity is increasing worldwide.

BRAIN RESEARCH NOT HARD TO SWALLOW

Researchers have found it is possible to re-organise the brain connections which control swallowing muscles in people who cannot swallow food or drink. Swallowing disorders can lead to serious health complications like aspiration pneumonia, malnutrition, dehydration and choking. They are a common result of damage to the central nervous system, such as stroke, neurodegenerative disease and premature birth, and affect tens of thousands of Australians each year, resulting in significant medical, social and health care costs. Dr *Sebastian Doeltgen* from the *University of Adelaide*, and colleagues, are currently investigating how electrical stimulation of muscles involved in swallowing affects neural connections in the brain and how this technique can be optimised for safe and efficient application in patients with swallowing disorders.

JUNK FOOD – IS IT ADDICTIVE?

Why do so many people struggle to control junk food intake? Consuming foods high in sugar and fat causes the release of dopamine in the central reward pathway creating a feeling of pleasure, not dissimilar to that caused by drugs. Repeated activation of reward feelings is associated with addiction and this study has shown that chronic junk food intake can result in dependency. *Zhi Yi Ong*, *University of SA*.

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The prestigious Ross Wishart Award is to be announced at 5.30pm June 9, after competing presentations at the Meeting (more information about finalists available).

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Editors Note – **Photo Opportunities**

