

YOUNG SOUTH AUSTRALIAN MEDICAL RESEARCHERS REVEAL THEIR LATEST ADVANCES

A Gecko's tail!

The humble gecko is helping unlock the mysteries of regeneration and vascular regrowth. The Australian marbled gecko *Christmas marmoratus*, like many gecko species can drop its tail to escape predators. *Christmas marmoratus* can then regenerate a new, fully functioning tail! Molecular modeling is helping to identify crucial elements for successful regeneration, providing insight into wound healing and tumour metastasis. *Helen Blacker, University of Adelaide*

Grape Seed Extract and bowel disease

Ker Cheah from the *University of Adelaide* is looking at the effect of grape seed extract on chemotherapy induced and inflammatory bowel disease. Grape seed extract has the potential to exert anti-oxidant and anti-inflammatory activities within the gastrointestinal tract and may represent a promising new treatment.

Can your waistline affect your sleep?

Abdominal obesity is frighteningly common in males. Apart from the obvious health related issues from having a large waistline, it has been thought that indirectly this phenomenon might make a person's upper airway floppy and then prone to collapse. *Daniel Stadler's* work at the *Adelaide Institute for Sleep Health* has produced findings that support the theory that abdominal obesity influences upper airway function in sleep, potentially contributing to a common sleep disorder known as obstructive sleep apnoea.

What Mum's eat whilst breastfeeding can influence how fat their baby becomes!

Although it is becoming more widely known that exposure of an unborn baby to an excessive nutrient supply contributes to an increased risk of obesity for that child later in life, it is unclear the contribution that the prenatal Vs post-natal nutritional environment plays. *Mini Vithaythil* from the *FOODplus Research Centre* has been investigating this area and has found that exposure to a high-fat diet during the suckling period increases the amount of fat babies born to both obese or lean mothers have. This finding suggests that exposure to high-fat diets in the postnatal period is more important for increasing body fat later in life than exposure before birth.

Having an obese Mum can take bub's breath away

There has been a substantial increase in the proportion of women beginning pregnancy as overweight or obese. This predisposes them to multiple obstetric complications, including preterm birth and gestational diabetes. An increased risk of gestational diabetes results as obese women are less insulin sensitive. *Erin McGillick*, from the *Samson Institute for Health Research* has provided preliminary evidence for the link between abnormal glycemic control during gestation and respiratory distress syndrome observed in infants of obese mothers.

Do nanoparticles pose a health hazard?

Nanotechnology is a newly emerging and rapidly developing industry but very little is known about its associated risks and health hazards. Nanoparticles, which have at least one dimension in the 0.2 – 100 nm range, have a plethora of applications, including in the medical and pharmaceutical industries, in the electronics and communications industries and in the manufacture of paints, detergents and textiles. This has led to an increase in workplace exposure to these particles. *Clare Cooksley* from *Flinders University* is conducting a risk assessment of nanoparticle exposure to see if they have harmful effects.

Photo and Interview Opportunities

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