

The Australian Society for Medical Research ASMR Medical Research Week® June 2010

ASMR NSW SCIENTIFIC MEETING, June 7th 2010 Powerhouse Museum, Ultimo

MEDICAL RESEARCH STARS SHOWCASE BREAKTHROUGHS

TRIPLE "A" RATING – ANXIETY, ADDICTION & AUTISM *Dean Carson* (University of Sydney) researchers the role of the hormones oxytocin and vasopressin in treating psychopathologies such as addiction, anxiety and autism. He has found that oxytocin can reduce drug addictive behaviour and has linked this affect to key areas of the brain.

LOSING "THE SPARK" DUE TO CHRONIC CANNABIS USE!

Did you know that Australia has the HIGHEST use of cannabis consumption per capita in the world? *Robert Battisti* (Universities of NSW, Wollongong & Sydney) has studied the long-term effects of chronic use of cannabis on brain function such as memory and attention, by using some novel testing procedures. He has uncovered that cognitive functioning, as well as brain electrical activity, is consistently affected in cannabis users, with bigger differences seen with earlier starting ages and longer periods of cannabis use.

Crusades against Cancer

WHAT DOES A VIRUS HAVE TO DO WITH BREAST CANCER?

The human papillomavirus (HPV) has been shown to be involved with cervical cancer. *Benjamin Heng* (University of NSW) has now provided unequivocal evidence that HPV is also found in breast cancer. Can vaccination be used to prevent breast cancer?

LUCKY NUMBER 7 DETECTS "SILENT KILLER"

Early detection of ovarian cancer is essential to improve patient survival, as it is known as the "silent killer" due to often being diagnosed too late. A panel of 7 genes has been identified by *Brian Gloss* and coworkers (Garvan Institute of Medical Research), which could form the basis of a new screen, identifying ovarian cancers before they become deadly.

3D INVASION OF BRAIN TUMOURS

Glioblastoma is the most common primary brain cancer, with almost all patients dying within 12 to 15 months. Therefore, there is an urgent need to develop new drugs to target specific molecules in signalling pathways that have been implicated in glioblastoma. *Jessie Zhong* (Kids Research Institute & University of Sydney) has created a 3D system of mimicking brain tumours and has shown that by reducing the levels of a likely causative gene, the cancer cells lose their ability to migrate and invade.

IMPROVING SURVIVAL FROM LEUKEMIA

20% of children with acute lymphoblastic leukemia relapse from remission due to a small number of cancer cells surviving. *Mawar Karsa* (Children's Cancer Institute Australian & University of NSW) has found that these persisting cells can be detected as early as day 15 of treatment, enabling delivery of tailored treatment sooner, possibly improving mortality and morbidity for patients.

The ASMR MRW® undertaken by ASMR is supported by funding from The Australian Government Department of Health and Ageing



DEVELOPING A VACCINE AGAINST BLOOD FLUKES NO FLUKE

Blood flukes, or "schistosomes" infect 200 million people worldwide and cause hundreds of thousands of deaths each year. A family of proteins known as tetraspanins are produced on the surface of the blood flukes. *Mai Tran* (Centenary Institute & QIMR) and colleagues have been investigating the possibility that some tetraspanins could function as vaccines against blood flukes, with enticing results.

The winner of the prestigious UNIVERSITY OF SYDNEY MEDAL will be announced at the conclusion of the Meeting

ABSTRACTS AVAILABLE - INTERVIEW OPPORTUNITIES

Media Contacts:

Dr Ruby Lin Mobile: 0402 476 868; E-mail: rubyl@unsw.edu.au

Catherine West Mobile: 0415 928 211; E-mail: asmr@alwaysonline.net.au

Priscilla Diment Mobile: 0431 254 854

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