

**22<sup>nd</sup> ASMR NSW Scientific Meeting - Monday June 2, 2014 - Powerhouse Museum**

Annual NSW Scientific Meeting is to be opened (8:30am) by  
**The Hon Jillian Skinner MP, NSW Minister for Health and Minister for Medical Research**

### **You are what your grandfather ate!**

Parental obesity is a major predictor of child obesity, and there is increasing evidence that metabolic diseases (e.g. diabetes, obesity) can be inherited across generations. Dr Virginie Lecomte, a research fellow working with Prof. Margaret Morris from UNSW, Australia has been studying the effect of paternal obesity (i.e. obesity in the father) on metabolic health in children. The findings are intriguing – male rats fed a high fat diet fathered male offspring with metabolic abnormalities. Furthermore, the offspring of the second generation male rats were also susceptible to metabolic disease, despite their fathers having been maintained on a normal diet. The results demonstrate that paternal obesity affects the metabolism of two subsequent generations, programming metabolic defects not only in offspring but also in grand-offspring..

### **New cost-effective blood test to guide snake bite treatment**

Following a snake bite, it is critical to determine whether an individual has been envenomated in order to determine whether antivenom treatment is required. Kalana Maduwage and colleagues from the University of Newcastle have developed a rapid and accurate blood test to detect a common toxin in snake venom. Their early trials indicate that this test is effective in detecting venom from various snakes, including vipers, cobras and black snakes. It is hoped that these findings will enable the development of a simple bedside test to diagnose snake envenomation and guide treatment in resource-poor areas.

### **Firing wasting muscle back to life**

Improved treatments are required for diseases that involve impaired signalling between nerves and muscle, such as myasthenia. Marco Morsch and colleagues at the University of Sydney have uncovered a new role for a class of molecules that may prove useful in treating such diseases. Termed cannabinoids, these molecules have been found to increase nerve signalling activity at the junction between nerves and muscles. When this system was stimulated by injecting a cannabinoid compound into a mouse model of myasthenia, clinical signs of the disease were reversed. These exciting findings suggest that drugs targeting the cannabinoid system may represent viable therapies for neuromuscular diseases.

### **Understanding the ‘tipping point’ for recovery from anorexia**

Anorexia has the highest mortality rate of any psychiatric disorder, with less than half of people affected achieving full recovery. Recovery is usually associated with a ‘tipping point’, however the factors that contribute to this tipping point have been unclear. Research from Kenneth Cho and colleagues from the University of Western Sydney has provided new insights, finding that four main themes contributed to reaching the tipping point and eventual recovery. The findings reinforce the idea that, in addition to specific psychotherapies or treatments, experiences such as personal and spiritual relationships are important in recovery.

Interview and Photo Opportunities  
Awards Presentation from 5:40pm

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