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EXCELLENCE IN WESTERN AUSTRALIAN HEALTH AND MEDICAL RESEARCH

Have you heard about the good bacteria?

Almost every child will suffer from a middle ear infection at least once by the age of three. Treatment involves antibiotics but unfortunately some children will experience frequent reoccurring episodes and suffer severe symptoms that can lead to surgery to avoid hearing loss and deafness.

The infection is caused by the invasion of pathogenic bacteria. Interestingly, some children are resistant to these bacteria and don't experience recurring infections.

Rachael Lappan, a researcher from the Telethon Kids Institute and University of Western Australian thinks that one factor that may determine whether a child is prone or resistant to infection are the types of bacteria that normally live in the upper respiratory tract, bacteria known as the microbiome.

Using sophisticated and high resolution techniques, Rachael is comparing the microbiome from kids prone to middle ear infections and kids that are resistant.

This strategy will be used to identify bacteria in order to develop a way of protecting kids from the invading bad bacteria causing infection. The work will assist in the development of preventative probiotics to help reduce the number of children experiencing middle ear infections.

An apple a day keeps the geriatrician away

Research from the Royal Perth Hospital and University of Western Australia has revealed that consumption of an extra piece of fruit per day in elderly Australians, can significantly reduce the rate of cardiovascular disease the leading cause of death worldwide.

Nicola Bondonno has assessed diet and the health of some 1052 Western Australian women over the age of 70 and found that just a 50 gram increase in daily apple consumption lowered the odds of having severe abdominal aortic calcification, a marker of cardiovascular disease, by 24%.

Nicola's study looked at the consumption of all fruits and vegetables, and found that only the consumption of apple had the link with reduced cardiovascular disease, validating the age old proverb that "an apple a day keeps the doctor away"!

Dynamic duo to help fight childhood brain cancer

Childhood cancer is every parent's worst nightmare, but Wesley Wilson from the WA Kids Telethon Institute has taken up the fight employing a Batman and Robin styled combination to try and improve outcomes.

To eradicate the childhood brain cancers, Wesley and his colleagues have established new model systems and therapies. Using cells isolated from a child undergoing surgery for brain cancer, Wesley has been able to grow these in the lab and test 38 new compounds. He has identified an excellent candidate compound that stops the cancer from growing. This compound used in combination with standard chemotherapies efficiently kills the cancer cells. Wesley said the combination is like employing the crime fighting team, 'Batman and Robin'. Batman rounds up the cancer cells while Robin makes sure none get away.

