

## **Second International Conference on Healthy Ageing & Longevity**

The second *International Conference on Healthy Ageing and Longevity* was held at the Brisbane Convention and Exhibition Centre on 18-20 March, 2005. It was a magnificent meeting ranging right across all disciplines with over 80 world-class speakers, the WHO's WHO of Healthy Ageing. The Conference was co-sponsored by the World Health Organisation. The International Research Centre for Healthy Ageing & Longevity (IRCHAL) developed the Conference Programme. In the 3 days there were 95 papers presented to an audience of about 400. There were 56 speakers from Australia, 13 from USA and 13 from other countries.

At the opening ceremony there was a performance by Descendance an Aboriginal and Torres Strait Islander Dance Group (winners of the 2004 cultural Olympics, South Korea), addresses were given by Dr. Alexandre Sidorenko (Chief of the United Nations Focal Point on Ageing), The Hon. Julie Bishop (Federal Minister for Ageing) and Prof. Michael Kidd (President, Royal Australian College of General Practitioners). Prof Kidd said that never before in history has there been a cohort of people in developed countries who have lived to advanced years in good health.

Plenary lectures in the mornings were given by outstanding international speakers. Dr Alexandre Kalache (UN, Geneva) spoke about the accumulation of risk factors for age-related diseases with increasing age. He said more resources should be spent in promoting good health. Prof Suresh Rattan (Denmark) said that ageing is mainly due to the failure of maintenance and repair. Prof Leonard Hayflick (San Francisco) believes that it is the fundamental biology of ageing that predisposes us to the age-associated diseases. Prof Andrus Viidik (Denmark) emphasised the role of physical exercise and the prevention of obesity in healthy ageing. Dr Reubin Andres (NIH, Baltimore) said that the metabolic syndrome increases the risk of developing coronary artery disease and diabetes. Dr Mitchell Harman (Phoenix, AZ) discussed the estrogen controversy in relation to cardiovascular disease in menopausal women.

Twin brothers Dr Craig Willcox (Okinawa) and Dr Bradley Willcox (Honolulu) discussed the Okinawa Centenarian Study of over 700 centenarians which has been running for 29 years. In Okinawa there are 50 centenarians per 100,000 population, compared with 15 in Australia. Okinawans are the world's longest living people. Their death rates from coronary heart disease and cancer are low compared with USA and Australia. The greater survival of Okinawans is largely because their diet is high in vegetables and fish, plus their easy going personality. Dr Thomas Perls (Boston) interviewed a panel of 4 Australian centenarians.

Prof. Brian Morris (University of Sydney) discussed the molecular basis of life span, considering the role of the forkhead box gene FOXO, which is pivotal for the onset of life-shortening diseases. Dr George Roth (Baltimore) discussed the agents or strategies which can mimic the anti-aging effects of calorie restriction. A/Prof Arthur Everitt (University of Sydney) described human studies showing that drugs, which lower blood

pressure and blood cholesterol and thereby prolong life, are acting in a similar way to calorie restriction which extends life in rats. Dr Donald Ingram (Baltimore) described studies searching for biomarkers of ageing in animals and humans.

Longitudinal studies linked risk factors for age-related diseases to healthy ageing and longevity. Prof John McCallum (Victoria University, Melbourne) discussed the reduction in survival time in the elderly caused by smoking, diabetes and hypertension. Prof Hal Kendig (University of Sydney) said the best predictors of healthy ageing were education, physical performance and physical health, level of strain and how often bored. Prof Annette Dobson (University of Queensland) identified risk factors for early death among elderly women as poor self-rated health, having at least 3 chronic conditions, cigarette smoking, being sedentary and being underweight.

At the Conference Gala Dinner Dr David Suzuki (Vancouver), the internationally renowned scientist, described how humanity has unfavourably altered the biological, physical and chemical properties of the planet. Suzuki said humanity must learn to live with the environment and other forms of life to flourish.

The ageing brain is able to acquire new nerve cells according to Prof Perry Bartlett (University of Queensland). Thus it may be possible to replace damaged nerve cells and thereby maintain cognitive functions. Dr James Joseph (Tufts University, Boston) discussed the beneficial effects of fruits and vegetables in brain ageing. A/ Prof Zeinab Khalil (University of Melbourne) described a novel skin test for Alzheimers disease.

Prof Jay Olshansky (University of Illinois, Chicago) predicted that the rising level of obesity will lead to a fall in life expectancy in the coming century. Prof Stephen Myers (University of Queensland) said we must reduce the morbidity associated with old age by starting preventive therapy early in life.

Promising anti-ageing molecules were considered in one session. Coenzyme Q10 action in energy generation was discussed by Prof Tony Linnane (Melbourne), kinetin effects on skin fibroblasts by Prof Suresh Rattan (Denmark), carnosine action on fibroblasts in cell culture by Dr Robin Holliday (Sydney). A/Prof David Sinclair (Harvard Medical School) discussed the role of resveratrol (found in red wine), in activating the sirtuins which like calorie restriction extend the lifespan of lower animals.

The role of mitochondrial dysfunction in ageing was considered by 3 international experts in this field. Prof Nils-Goran Larsson (Stockholm) Prof Masashi Tanaka (Tokyo) and Dr Michael Murphy (Cambridge, UK)

. The use of herbal medicines such as garlic, Ginkgo, Korean ginseng and green tea to improve health were discussed by A Prof Kerry Bone (University of New England, Armidale). A/Prof Manohar Garg (University of Newcastle, NSW) described the antioxidant, anti-inflammatory and anti-carcinogenic properties of pycnogenol, an extract of French pine tree bark. Dr Narendra Singh (Lucknow, India) described the ayurvedic herbals as possible enhancers of healthy ageing.

In the closing presentations, Dr Alexandre Sidorenko (United Nations Focal Point on Ageing, New York) said that our healthy life expectancy is also growing along with the increase in lifespan. Ageing is often seen as a financial burden. We need to encourage a longer working life, to maintain our economic growth. Prof Gary Andrews (Adelaide) said ageing is essential to life, not to be feared or stopped, but we should do all we can to eliminate the diseases of ageing. Gary said "If I didn't age I couldn't live".

The third annual conference will be held in Melbourne 28-30 April 2006.

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