

EASTER ISLAND DIRT KEY TO LONG-LIFE

An anti-fungal substance found in Easter Island soil may hold the key to extending human lifespan, according to international genomics & Anti-Ageing Medicine expert, Professor Brian Morris.

The natural chemical, rapamycin, which is used as an immunosuppressant in renal transplant patients has now been found to extend the lifespan of middle-aged mice.

Professor Morris, from the University of Sydney & the Bosch Institute, said the discovery represents the first chemical ever to extend mammalian lifespan.

“Other substances, such as resveratrol, have been found to increase health span or ‘healthy life’, but this is the first to actually increase lifespan,” Prof Morris said.

“However, its use in extending lifespan may be controversial due to its suppression of the immune system. Work is continuing in this area.”

Prof Morris will officially open the 2009 AustralAsian Academy of Anti-Ageing Medicine Conference in Melbourne on October 3.

Prof Morris will discuss many new scientific findings and the interventions that can modify ageing.

Prof Morris' genomics research has shown that resveratrol can suppress 2 genes in the Ras pathway implicated in cancer.

“Genomics is the science of the genome and how it functions to determine the characteristics and physiology of cells, which in turn determines how our body works,” Prof Morris said.

“Advances in molecular genetics, the ability to manipulate genes, and advances in gene expression analysis have revolutionized biology.

“Scientists now know the structure of every gene in the human genome and have strong candidates for the genes responsible for long life.

“This knowledge has provided a number of discoveries in disease prevention strategies and lifespan extension.

“These include caloric restriction, resveratrol, and synthetic chemicals, such as STC2104, whose ability to activate sirtuins, a class of enzymes that mediate the beneficial effects in cells, is 1000-times more potent than resveratrol.

“Much of the new knowledge has come from use of microarray technology and bioinformatic analysis.