

RESEARCH DIRECTIONS

Herbal medicines and healthy ageing

Professor Nikolaus Sucher from the Centre for Complementary Medicine Research, together with LIPA Pharmaceuticals Ltd have been awarded a UWS Research Partnership Program grant to test the efficacy and safety of herbal medicines thought to promote healthy ageing and longevity.

'Age is the leading risk factor for many of the most prevalent and devastating diseases such as stroke, Alzheimer's disease, cardiovascular diseases and cancer. With the rapid ageing of the population, the impact of these age related diseases on public health and health budgets will become ever more challenging in Australia and worldwide', says Professor Sucher. 'We will test the hypothesis that certain Chinese herbal medicines increase the oxidative stress resistance and chronological life span of baker's yeast, a well-established model of the cellular basis of ageing, by influencing the expression of specific genes. This work is critical to LIPA's plans to develop chemically defined herbal extracts for the use as proprietary ingredients in listed and eventually registered herbal medicines.'

The research team will screen extracts of 12 Chinese medicinal herbs for their effects on oxidative stress resistance (OSR) and chronological life span (CLS) in yeast. Those extracts exhibiting the most pronounced positive activity will be selected for functional genomic experiments, which draw on the vast wealth of data produced by genomic projects (such as genome sequencing projects) to describe gene (and protein) functions and interactions.



This research program will contribute to the development of evidence-based, effective, and safe herbal health care products for promoting general health and preventing ageing related diseases and serve as a model for basic research aimed at the development of registered herbal medicines.

Project Title: Molecular effects of Chinese herbal medicines on oxidative stress resistance and ageing in yeast: a functional genomics and phytochemistry approach

Funding has been set at: \$33,483

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<http://www.uws.edu.au/complemed>

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For more information on UWS Research Partnership Program, check:

http://www.uws.edu.au/research/ors/funding_opportunities/internal_research_grants