

New clues into the chemistry of anti aging

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Science has longed for answers into what causes human aging and what could be done to slow or prevent it. Research on the natural plant-based compound Resveratrol (<http://www.biotivia.co.uk/resveratrol.html>) found in cranberries, certain pines and Japanese knotweed is helping to give scientists new clues into the chemistry of anti aging.

Part of a family of phytoalexins, Resveratrol garnered much attention in recent years for its role in reducing inflammation and more recently for its effects on reducing diabetes by lowering blood sugar levels. The popularity of the compound has helped researchers get more funding to study why Resveratrol is able to have this effect on age-related diseases.

Resveratrol stimulates anti-aging genes

Over 70 years ago scientists were able to prolong life in mice by up to 50% in some cases by restricting their diets. These calorie-restricted mice not only lived longer than their normal cousins, but they also showed signs of 'improved' aging including better memory and motor skills. But because humans find it extremely difficult to remain on such restricted diets, the research never found support and the reasons for the anti-aging effects weren't seriously looked at, until recently.

The study of genetics has accelerated in the past 20 years and new insights into how genes control damage to cells and even work to prevent that damage have come to light. A group of proteins called sirtuins have been found to trigger cellular protection mechanisms when energy reserves within the cell are low. These genetic mechanisms that lead to longevity and disease resistance in calorie-restricted mice are now being used to investigate how compounds such as Resveratrol trigger or mimic those mechanisms.

What researchers are now trying to determine is how exactly Resveratrol (<http://www.biotivia.com/resveratrol.html>) works to trigger or mimic the same metabolic regulators and longevity mechanisms as found in calorie-restriction. This cutting edge research into Resveratrol is helping to define previously unexplained biochemical changes that were found to prolong the lives of lab mice and improve their cognitive functions. Its role in the human body is the next stage of research, and one that is finding increased support amongst the scientific community, as Resveratrol proves itself to be an incredibly complex and wide ranging compound with a host of potential health benefits.

New discoveries shed light on aging and disease

Two more recent studies seem to confirm the role of mimicking or reproducing calorie-restriction as a clue to anti aging – one on mice found that an anti-fungal drug Rapamycin extended life significantly. More research is being done on the drug to see what properties of the anti-fungal caused this life extension. The second study, out of the University of Wisconsin, showed that primates on a calorie-restricted diet suffered fewer age-related diseases than those on a normal diet.

Rapamycin is interesting to scientists because it is an anti-fungal. The thought is that the anti-fungal properties of Rapamycin and natural plant-based compounds like Resveratrol are somehow stimulating

cellular protection within animals. Primate research carried out is supportive of the calorie-restriction pathways as a clue to unlocking anti aging mechanisms. With testing now under way, scientists are predicting that there will be more news soon on Resveratrol and its role as a powerful anti aging compound.

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<http://naturalhealthwellbeing.blogspot.com>

The Northumbria Study: <http://www.biotivia.com/company/news/Bioforte-Increased-Cerebral-Blood-flow-in-New-Human-Clinical-Trial.html>