

Looking into tea's protective power on the mind

A University of Malta researcher, Mario Caruana, is currently studying the effect that natural substances found in fruits and vegetables, and food and drink products made from plants such as tea, red wine, and olive oil, known as polyphenols, have on neuro-degenerative diseases such as Parkinson's Disease. Studies have shown that drinking two or more cups of tea daily results in a reduced risk of such diseases.

Mr Caruana's three-year Ph.D. research programme, which has already involved him working in state-of-the-art German laboratories alongside highly-motivated and renowned research teams, is being supervised by Dr Neville Vassallo from the University's Department of Physiology and Biochemistry.

Mr Caruana and Dr Vassallo recently presented some of the data obtained through the research at an international conference on polyphenols and health that the University of Malta and the French Antioxidant Society jointly organised in Malta last week, details on which may be found at www.isanh.com/polyphenols/2006/index.php

In Parkinson's Disease, the body produces an abnormal toxic protein called alpha-synuclein, that destroys parts of the brain. Mr Caruana's tests have shown that most polyphenols not only prevent these harmful substances from being produced, but can even convert them into their non-toxic form. He is now proceeding to investigate whether polyphenols can also protect neurons from the toxic protein's cell-damaging effects. His proposed dissertation will investigate the extent to which polyphenols found in the normal human diet can trigger neuro-protective mechanisms.



Mr Caruana, 31, expects that his research will lead to a more rational approach in the use of polyphenols to prevent or reverse the accumulation of the toxic protein in the body as an ideal way to treat the underlying cause of Parkinson's Disease.

Although there is no effective cure for the disease, he said that supplementing diets with polyphenolic compounds may forestall or delay the incidence of age-related neurological disorders.

Mr Caruana feels great satisfaction that he is contributing to discoveries that may lead to better treatment for incurable neurological conditions. His research is being sponsored under the Malta Government Scholarship Scheme (MGSS).

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