A 'grape' future for Alzheimer's disease research

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With National Alzheimer's Awareness Month upon us, attention continues to focus on new approaches to cognitive health in an aging population. Now, research with grape polyphenols presented today at Neuroscience 2007 in San Diego shows promise for maintaining long-term cognitive health.

The researchers will now focus on grape polyphenols and Alzheimer's disease (AD) at the newly established Center for Research in Alternative and Complementary Medicine in Alzheimer's disease research at Mount Sinai School of Medicine (MSSM).

Two recent population studies associated moderate red wine and 100 percent fruit juice consumption with lowering the risk of AD dementia (wine) or delay in AD onset (juice). Adding further weight to those studies is the research presented by Dr. Lap Ho at Neuroscience 2007, which demonstrated the potentially protective effect of Concord grape juice and Cabernet Sauvignon polyphenols to slow beta-amyloid neuropathology.

A characteristic hallmark of Alzheimer's disease-type neuropathology is the accumulation of beta-amyloid peptides and their formation into plaques in the brain. Dr. Ho at MSSM found that polyphenol extracts from Cabernet Sauvignon and Concord grape juice reduced the generation and accumulation of beta-amyloid peptides in experimental models of Alzheimer's disease.

“This grape polyphenol research is preliminary, but very encouraging,” said Dr. Giulio Pasinetti, director of the new center and principal investigator of the research program in polyphenolics at MSSM. “The results show the potential protective role which non-alcoholic, polyphenol-rich Concord grape juice may play in maintaining long term cognitive health.”

Previous work by Dr. Pasinetti’s group at MSSM reported that moderate consumption of Cabernet Sauvignon wine had reduced AD-type neuropathology and prevented cognitive decline in a transgenic mouse model , yet counseled that even moderate intake of alcohol may carry health risks, particularly with an older population.

Currently, it is estimated that five million people in the United States suffer from Alzheimer’s disease, with the number projected to reach 11 to 16 million by the year 2050. However, delaying the onset of Alzheimer’s disease by five years is estimated to potentially reduce the number of projected cases by 50 percent. Ongoing studies directed by Dr. Pasinetti at the new center will provide critical information about the functional role of selected grape-derived polyphenols in the prevention and/or attenuation of cognitive deterioration of Alzheimer’s disease.

“Our goal is to learn which compounds are bioactively available to reach the brain and exert a benefit,” says Dr. Pasinetti.

Source: Hunter Public Relations