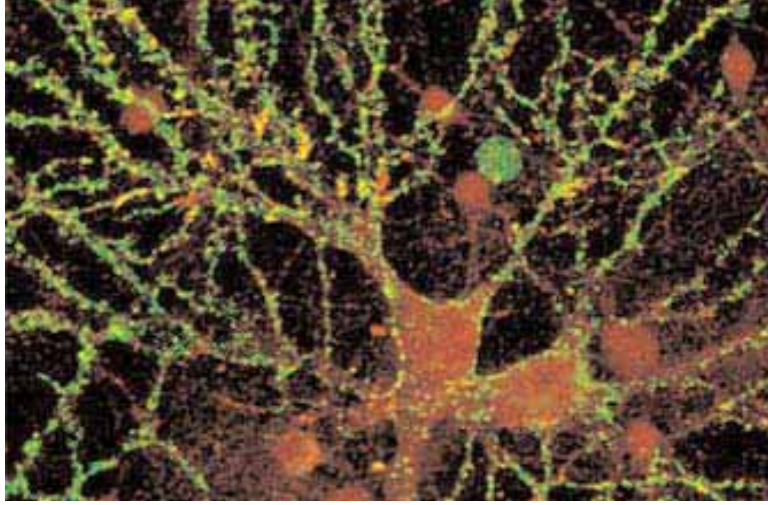


Olive oil compound may fight Alzheimer's

NORTHWESTERN — A new study has found that oleocanthal, a naturally occurring compound found in extra-virgin olive oil, beneficially alters the structure of neurotoxic proteins believed to contribute to the debilitating effects of Alzheimer's disease.



The structural change impedes the ability of highly toxic proteins known as ADDLs to damage brain nerve cells. This effect of oleocanthal could be used to advantage in new therapeutics and diagnostics.

"Binding of ADDLs to nerve cell synapses is thought to be a crucial first step in the initiation of Alzheimer's disease," says study coleader William Klein, professor of neurobiology and physiology at Northwestern University. "Oleocanthal alters ADDL structure in a way that deters the protein from binding to

synapses. Translational studies now are needed to link these laboratory findings to clinical interventions."

"Our findings may help identify effective preventative measures and lead to improved therapeutics in the fight against Alzheimer's disease," adds Paul A.S. Breslin, a sensory psychobiologist at the Monell Center, who coled the research with Klein.

ADDLs bind within the neural synapses of the brains of Alzheimer's patients and are believed to directly dis-

rupt nerve cell function, eventually leading to memory loss, cell death, and global disruption of brain function. Synapses are specialized junctions that allow one nerve cell to send information to another.

Klein and his colleagues identified ADDLs in 1998, leading to a major shift in thinking about the causes, progression, and treatment of Alzheimer's disease. Also known as beta-amyloid oligomers, ADDLs are structurally different from the amy-

loid plaques that accumulate in brains of Alzheimer's patients.

Reporting on a series of in vitro studies, the researchers found that incubation with oleocanthal changed the structure of ADDLs by increasing the protein's size.

Knowing that oleocanthal changed ADDL size, the researchers next examined whether oleocanthal affected the ability of ADDLs to bind to synapses of cultured hippocampal neurons. The hippocampus, a part of the brain intimately involved in learning and memory, is one of the first areas affected by Alzheimer's disease.

Measuring ADDL binding with and without oleocanthal, they discovered that small amounts of oleocanthal effectively reduced short-term binding of ADDLs to hippocampal synapses. Additional studies revealed that oleocanthal can protect synapses from damage caused by ADDLs.

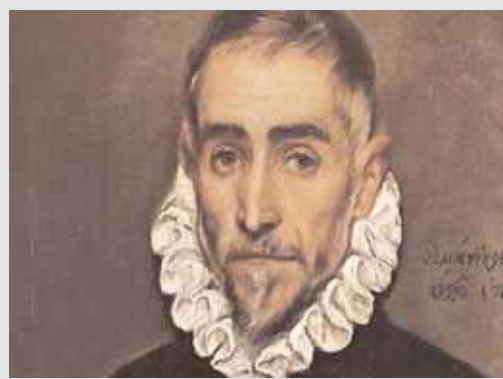
An unexpected finding was

that oleocanthal makes ADDLs into stronger targets for antibodies. This action establishes an opportunity for creating more effective immunotherapy treatments, which use antibodies to bind to and attack ADDLs.

"In addition to aiding therapeutics, enhancing ADDL immunoreactivity also could increase the sensitivity of antibody-based Alzheimer's diagnostics," says first author Jason Pitt, a graduate student in Klein's lab who conducted the studies.

Future studies to identify more precisely how oleocanthal changes ADDL composition may increase our understanding of the structural component responsible for ADDL toxicity. Such insights could provide discovery pathways related to disease prevention and treatment.

The National Institute on Aging funded the research, which will be published in the Oct. 15 issue of the journal Toxicology and Applied Pharmacology.



El Greco On the Road

If you're a fan of 'The Greek' - originally called Domenikos Theotokopoulos, a Crete-born artist who made his name in Italy and Spain - you'll have an easier time seeing his works outside of Greece. The Onassis Foundation in New York City is presenting a substantial exhibit of El Greco's predecessors, including some early works by the master himself. The Origins of El Greco runs from November 17, 2009 - February 27, 2010.

On Crete, the Historical Museum in Heraklion has a couple of paintings attributed to El Greco. It's one more reason for a visit to this often-overlooked but fascinating museum covering Crete from Roman times to the present.

A greater union: family cinemas sold

GREATER Union Cinemas, a subsidiary of giant tourism and leisure group Amalgamated Holdings Limited (AHL), has bought the Cronulla and Beverly Hills cinemas from the Tsagias family for \$9.8 million.

The Cronulla sale gives AHL control of adjoining properties: it also owns the Cronulla Rydges Hotel.

The company's managing director, David Sergeant, said there would be no initial changes to the cinemas and they would both continue to operate without Greater Union "branding" for the time being.

The company also owns megaplex cinemas at Miranda and Hurstville and Mr Sergeant said one possible change could see more cinema titles spread over the four sites.

The Greater Union purchase is the latest in property expansion by AHL



following its recent purchase of two major Queensland hotels.

The Tsagias family was unavailable for comment.

The Cronulla and Beverly Hills cinemas have been the subject of a number of development proposals over the years.

In 1989, the Tsagias company United Leisure Investments (ULI) proposed a \$25 million, 12-storey hotel on the old cinema site at

Cronulla which met opposition from residents.

In 2001, ULI announced plans to give the Beverly Hills cinema a \$14 million facelift, increasing the number of screens from two to eight and incorporating a pedestrian plaza.

In 2002 they expanded the plans to incorporate a 14-storey, 179-unit residential/commercial complex on the Edgbaston Road car park which was owned by Hurstville Council.

Residents opposed the move and the council rejected the proposal.

In 2003, the council approved an \$8 million redevelopment of the cinema as a 10-screen, 1800-seat complex with retail space and parking for 212 vehicles.

In 2004 the council approved an amended \$12 million 10-cinema complex for the site.

But Centro, owners of nearby Roselands, lodged an objection in the Land and Environment Court to the development on the grounds of "inadequate consideration of noise."

The court upheld Centro's objection. In December 2006 Hurstville Council approved a DA for another six cinema screens on the site.

In 2007 the site failed to sell at auction. The owners decided to develop the site, spending \$4.5 million expanding the complex to six cinemas. They reopened for business in September last year.

Article from The Leader

North Qld celebrates Greek culture

Organisers of this year's Greek Festival in Townsville in north Queensland say they have been buoyed by a strong turnout over the weekend. Coordinator Bill Malandris says the two-day event allows north Queensland's Greek community to share and celebrate its culture.

He says there seems to be a good response from the wider community as well.

"I know that octopus, they made 600 kilos of octopus and close to 3,000 kebabs - that was just one of the stats somebody gave me. It's really mind boggling when you hear those type of things," he said.