Drugs targeting blood vessels may be candidates for treating Alzheimer's

7 March 2013

(Medical Xpress)—University of British Columbia researchers have successfully normalized the production of blood vessels in the brain of mice with Alzheimer's disease (AD) by immunizing them with amyloid beta, a protein widely associated with the disease.

While AD is typically characterized by a build-up of plaques in the brain, recent research by the UBC team showed a near doubling of blood vessels in the brain of mice and humans with AD.

The new study, published online last week in *Scientific Reports*, a *Nature* journal, shows a reduction of brain capillaries in mice immunized with amyloid beta – a phenomenon subsequently corroborated by human clinical data – as well as a reduction of plaque build-up.

"The discovery provides further evidence of the role that an overabundance of brain blood vessels plays in AD, as well as the potential efficacy of amyloid beta as basis for an AD vaccine," says lead investigator Wilfred Jefferies, a professor in UBC's Michael Smith Laboratories.

"Now that we know blood vessel growth is a factor in AD, if follows that drugs targeting blood vessels may be good candidates as an AD treatment."

AD accounts for two-thirds of all cases of dementia. The number of Canadians living with dementia is expected to reach 1.4 million by 2013, according to the Alzheimer's Society of Canada.

More information:
www.nature.com/srep/2013/13022 … /full/srep01354.html

Provided by University of British Columbia

candidates-alzheimer.html