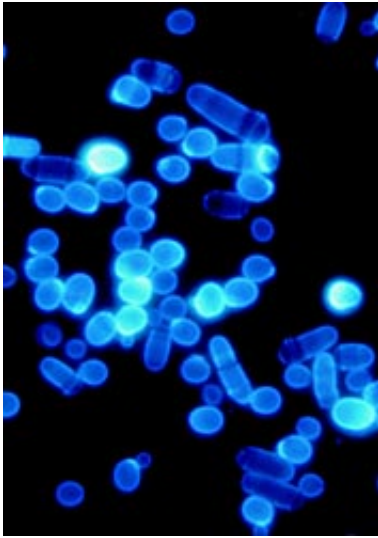


Alzheimer's disease breakthrough

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Yeast species like these could be used to develop a rapid screening process for identifying compounds which inhibit Alzheimer's disease. Image: CSIRO

CSIRO scientists have developed a new system to screen for compounds that can inhibit one of the processes that takes place during the progression of Alzheimer's disease.

In a paper published in the latest edition of the *Journal of Alzheimer's Disease*, folate is shown to be beneficial in the screening system.

Lead author, CSIRO's Dr Ian Macreadie says folate is already well known to have a protective effect against Alzheimer's disease which is believed to be caused by the loss of neurons in the brain due to a process

whereby toxic multimers of a small protein called A β are formed.

“However, a team of scientists working within CSIRO’s Preventative Health Flagship has discovered a rapid screening system to identify inhibitors of this process. Compounds that inhibit the formation of the toxic multimers may lead to the prevention or delay of the disease,” Dr Macreadie says.

“Although many other research groups and drug companies around the world are trying to find compounds that act in the same way, the advance by the Flagship team involves using live yeast with the A β protein fused to a green fluorescent protein that comes from jellyfish.

“The significance of this development is that the yeast trial we developed could lead to the discovery of new agents which may prove useful in preventing or delaying the onset of Alzheimer’s disease.”

Currently Alzheimer’s disease is an incurable illness and the fourth leading cause of death in people aged 65 years and over.

Although folate is abundant in foods like leafy green vegetables, pulses and liver, CSIRO studies have shown that many Australians do not consume enough folate to benefit from its ability to prevent cell damage. Folate levels can, however, be readily restored by dietary folate supplementation.

Provided by CSIRO

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