

Alzheimer's rat created for human research

March 29 2010

Prof. Claudio Cuello at McGill University and his collaborators have genetically manipulated rats that can emulate Alzheimer's disease in humans, enabling research that will include the development of new treatments.

Alzheimer's is a devastating brain condition leading to a progressive decline of memory and other brain functions. Although research mice have been developed in the past, rats are more intelligent than other rodents and the behavior of these rats is rich and predictable, which means that for the first time researchers will be able to detect and study the evolution of learning and memory deficits.

Moreover, researchers can now study a suspected "latent phase" of [Alzheimer's disease](#). The disease is caused by the accumulation in the brain of molecules known as [peptides](#). This accumulation has been repeated in lab mice, but the human condition develops through different stages and these rats enable this progression to be mimicked for the first time. Studies of this phase were previously impossible as humans do not have biochemical markers that would allow the development of Alzheimer's to be predicted.

More information: The research was published on March 29, 2010 in the Volume 20:1, April 2010 edition of the Journal of Alzheimer's Disease.

Provided by McGill University

Citation: Alzheimer's rat created for human research (2010, March 29) retrieved 3 May 2024 from <https://medicalxpress.com/news/2010-03-alzheimer-rat-human.html>

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