Medical Xpress

Lab charts age-related changes in Alzheimer's mice

May 28 2013

Scientists at the University of Kentucky recently performed a comprehensive characterization of age-related behavioral changes in an important mouse model of Alzheimer's disease.

Led by Linda Van Eldik, director of UK's Sanders-Brown Center on Aging, the researchers examined motor performance, anxiety-like behavior and cognitive ability at different stages in the lifespan of the mice: young (7 months), middle-aged (11 and 15 months), and old (24 months).

The study found no impairments in motor function or anxiety-like behavior in the mice at any age tested. However, the mice developed Alzheimer-like memory problems as they aged.

The report, titled "Comprehensive behavioral characterization of an APP/PS-1 double knock-in mouse model of Alzheimer's disease," was published in the journal *Alzheimer's Research & Therapy*, with co-authors Scott Webster and Adam Bachstetter from the Van Eldik lab. This is the first study to provide such an in-depth characterization of this Alzheimer's mouse model.

The study used the new, state-of-the-art University of Kentucky Rodent Behavior Core, directed by Bruce O'Hara, for many of the behavioral experiments.

"It's wonderful to have a resource like the RBC available here at UK,"

Webster said. "It provides a vital step in translating our basic scientific findings into future clinical applications."

The Van Eldik lab anticipates that this report will provide a valuable resource to aid Alzheimer drug discovery, by providing a detailed behavioral characterization of this mouse model, and comparing it to other Alzheimer mouse models.

Provided by University of Kentucky