MedicalXpress

Research offers clue to halt Huntington's disease

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(PhysOrg.com) -- Surprising findings from a study into the brains of transgenic mice carrying the Huntington's disease mutation could pave the way for treatments which delay the onset and progression of this devastating genetic disease.

Researchers at the Queensland Brain Institute (QBI) have found that the brains of mice with Huntington's disease nevertheless retain populations of the precursor and stem cells which can give rise to new neurons.

The potential for stimulating the production of new neurons in Huntington's disease patients thus remained high, according to Dr Tara Walker, the postdoctoral fellow who carried out the work in the laboratory of Professor Perry Bartlett.

“Combined with previous findings which show that environmental enrichment and antidepressant treatment delayed both the onset and progression of Huntington's disease in mice, these findings are encouraging,” she says.

Huntington's disease (HD) is a neurodegenerative disorder that results in progressive motor, cognitive and psychiatric deficits which eventually lead to death.

Currently, there is no known cure.

However, the research, published this week in *PLoS ONE*, holds out hope

that retained cell populations in the brains of Huntington's disease patients could one day be manipulated to replace degenerating neurons.

“Now we know that the capacity to generate neurons is retained in animals in even advanced stages of Huntington's disease, further research will need to explore what stops this process from occurring,” Dr Walker says.

“This may not only allow the restoration of neurogenesis, but may also allow this process to be harnessed to repair other areas of neuronal cell loss.”

Provided by University of Queensland