

The role of RCAN1 in Alzheimer pathogenesis

<https://www.neurodegenerationresearch.eu/survey/the-role-of-racan1-in-alzheimer-pathogenesis/>

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Country

Canada

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The role of RCAN1 in Alzheimer pathogenesis

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CIHR

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The project/programme is most relevant to:

Alzheimer's disease and other dementias

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Research Abstract

Lay Summary

Alzheimer's disease (AD) is the most common neurodegenerative disorder leading to dementia in the elderly population. Patients with diabetes have a greater risk to develop AD and a majority of AD patients also have hyperglycemia. The mechanism linking diabetes to AD remains

undefined. Progressive neuronal loss is one of the pathological features of AD. People with Down Syndrome having extra copy of chromosome 21 develop characteristic AD neuropathology after middle age and several genes on chromosome 21 including APP and the regulator of calcineurin 1 (RCAN1) are implicated in AD pathogenesis. Our preliminary studies suggest that RCAN1 promotes neurodegeneration and our working hypothesis is that abnormal RCAN1 expression and function contribute to Alzheimer pathogenesis. This proposal seeks to elucidate the molecular mechanism of RCAN1's effect on Alzheimer pathogenesis and define its role in linking diabetes to AD. The results will be of clinical significance and provide evidences for targeting RCAN1 in AD treatment.

Further information available at:

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