

Regulation of neuroinflammation in Alzheimer's disease by non-coding RNAs

<https://www.neurodegenerationresearch.eu/survey/regulation-of-neuroinflammation-in-alzheimer%c2%92s-disease-by-non-coding-rnas/>

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Regulation of neuroinflammation in Alzheimer's disease by non-coding RNAs

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Academy of Finland

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The project/programme is most relevant to:

Alzheimer's disease & other dementias

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Research Abstract

Microglial dysfunction and inability to clear the toxic beta-amyloid accumulation is a significant contributor to neuronal death in Alzheimer's disease (AD). Prevention of the toxic cycle of neuroinflammation has been proposed to be an efficient treatment strategy for AD, yet targeting these pathways is difficult due to lack of knowledge in pathways regulating microglial functions at the level of gene transcription. This study aims at identifying the gene regulatory processes that take place specifically in microglia in healthy brain and during AD development by obtaining cutting-edge next generation sequencing data from non-coding RNA levels in microglia in situ in vivo by using state of art flow cytometric cell sorting techniques. We will elucidate whether non-coding RNA targeting could be used to modulate microglial functions for the disease benefit. This project is likely to reveal novel determinants of regulation of neuroinflammation in AD and yield novel therapeutic targets.

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Fellowships

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