

Should we be treating Alzheimer's by targeting the gut before brain symptoms even appear?

[M]isfolded protein build-up in the gut could contribute to the development of Alzheimer's-like symptoms in mice. This could suggest a new treatment approach for Alzheimer's disease that would target the gut before symptoms of cognitive deficits appear in patients.

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[T]his suggests [environmental factors](#) might be contributing to cognitive deficits seen in Alzheimer's disease and other conditions.

The misfolded protein, known to be involved in Alzheimer's disease, called [beta amyloid](#), was injected into the guts of mice and travelled to the "[gut-brain](#)" (the nervous system in our gut), and also to the brain.

If some of the beta amyloid build up in the central nervous system (brain and [spinal cord](#)) is originating from the outside the brain (peripheral nervous system), reducing the amount that makes it to the brain, or trapping the protein in the periphery may delay the onset of Alzheimer's disease. This treatment would begin before any signs of dementia appear in the patient.

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As this study was conducted in mice, it needs verification by looking for post-mortem changes in inflammation in the gut and brain of patients with Alzheimer's disease.

Development of drug treatments for Alzheimer's disease has been unsuccessful so we instead need new approaches for preventing AD development. This could be a potential route for preventing the disease by targeting these misfolded proteins in the gut.

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