Treating Alzheimer’s Disease by blocking TGF-β signaling

**OCR Number:** OCR 5007

**Description:**

- Blocking the transforming growth factor-β (TGF-β) pathway in peripheral macrophages can significantly clear up β-amyloid plaques in brain.
- These results provide the basis for a novel therapeutic intervention for Alzheimer’s disease by blockade of TGF-β-Smad2/3 signaling in peripheral macrophages.
- Blockade of TGF-β works peripherally without the need to enter the brain and thereby overcoming the blood-brain barrier roadblock.

![Graph](image)

**Expression of a CD11c promoter–driven dominant-negative TGF-β receptor type II in an Alzheimer’s disease mouse model (Tg2576-CD11c-DNR) improved Alzheimer’s-like behavioral impairment such as hyperactivity.**

**Published/Issued Patents:** U.S. Pub. App. No. 20110136892

**Published/Issued Patents:** PCT App. Pub. No. WO2009146301

**Publications:**


[http://www.sciencedaily.com/releases/2008/05/080530132216.htm](http://www.sciencedaily.com/releases/2008/05/080530132216.htm)

[http://news.bbc.co.uk/2/hi/health/7427541.stm](http://news.bbc.co.uk/2/hi/health/7427541.stm)