

Discovery

1998 – 2005: Discovery of protein misfolding and a deeper understanding of the ion channel

May 1998

Amyloid β Protein-(1–42) Forms Calcium-permeable, Zn^{2+} -sensitive Channel

[https://www.jbc.org/article/S0021-9258\(19\)57767-5/fulltext](https://www.jbc.org/article/S0021-9258(19)57767-5/fulltext)

August 4th, 1999

Amyloid β Protein (1–40) Forms Calcium-Permeable, Zn^{2+} -Sensitive Channel in Reconstituted Lipid Vesicles

<https://pubs.acs.org/doi/abs/10.1021/bi982997c>

March 6th, 2000

Physiological Role of Gap-Junctional Hemichannels: Extracellular Calcium-Dependent Isosmotic Volume Regulation

<https://rupress.org/jcb/article-abstract/148/5/1063/20482/Physiological-Role-of-Gap-Junctional>

January 23rd, 2001

Imaging molecular structure and physiological function of gap junctions and hemijunctions by multimodal atomic force microscopy

[https://analyticalsciencejournals.onlinelibrary.wiley.com/doi/abs/10.1002/1097-0029\(20010201\)52:3%3C273::AID-JEMT1013%3E3.0.CO;2-M](https://analyticalsciencejournals.onlinelibrary.wiley.com/doi/abs/10.1002/1097-0029(20010201)52:3%3C273::AID-JEMT1013%3E3.0.CO;2-M)

2001

Atomic Force Microscopy of Reconstituted Ion Channels

<https://link.springer.com/protocol/10.1385/1-59259-118-3:371>

November 1st, 2001

Amyloid β protein forms ion channels: implications for Alzheimer's disease pathophysiology

<https://faseb.onlinelibrary.wiley.com/doi/abs/10.1096/fj.01-0377com>

July 2002

Imaging real-time aggregation of amyloid beta protein (1–42) by atomic force microscopy

<https://www.sciencedirect.com/science/article/abs/pii/S019697810200061X>

June 1st, 2003

Fresh and nonfibrillar amyloid β protein(1–40) induces rapid cellular degeneration in aged human fibroblasts: evidence for A β P-channel-mediated cellular toxicity

<https://faseb.onlinelibrary.wiley.com/doi/abs/10.1096/fasebj.14.9.1244>

June 1st, 2003

Fresh and globular amyloid β protein (1–42) induces rapid cellular degeneration: evidence for A β P channel-mediated cellular toxicity

<https://faseb.onlinelibrary.wiley.com/doi/abs/10.1096/fasebj.14.9.1233>

July 14th, 2005

Amyloid ion channels: A common structural link for protein-misfolding disease

<https://www.pnas.org/doi/abs/10.1073/pnas.0502066102>