Stabilized Amyloid Oligomers and Applications for Alzheimer's Research and Treatment

Tech ID: 33749 / UC Case 2017-186-0

BRIEF DESCRIPTION

An innovative approach to advancing Alzheimer's disease research, detection, and treatment through the development of synthetic amyloid peptides and oligomers.

FULL DESCRIPTION

This technology encompasses the synthesis of synthetic amyloid peptides and oligomers that mimic the amyloid-beta structures involved in Alzheimer's disease (AD). It includes methods for creating stable, soluble oligomers and specific antibodies against these oligomers, aiming to enhance understanding, detection, and therapeutic intervention in AD. The peptides are designed to replicate various forms of amyloid-beta, including those with mutations linked to familial Alzheimer's disease, and can form structures such as trimers through covalent links and disulfide bridges. Additionally, the technology outlines methods for producing antibodies with high affinity for soluble amyloid oligomers, potentially leading to novel diagnostic and therapeutic tools.

SUGGESTED USES

- Pharmaceutical development for Alzheimer's disease therapeutics.
- Clinical diagnostics for early detection of Alzheimer's disease.
- Academic and pharmaceutical research into the pathogenesis of Alzheimer's disease.
- Production of research-grade antibodies for biomedical research.

ADVANTAGES

- Facilitates advanced Alzheimer's disease research by providing synthetic models of amyloid oligomers.
- Supports the development of targeted therapies and diagnostics.
- Enables the production of high-affinity antibodies against soluble amyloid oligomers.
- Offers potential for understanding the role of amyloid oligomers in Alzheimer's disease progression.
- Includes peptides with mutations corresponding to familial Alzheimer's disease for broader research applications.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	11,319,348	05/03/2022	2017-186

CONTACT

Richard Y. Tun
tunr@uci.edu
tel: 949-824-3586.

OTHER INFORMATION

CATEGORIZED AS

- **Medical**
  - Disease: Central Nervous System
  - Therapeutics

RELATED CASES

2017-186-0

United States Of America	Issued Patent	10,662,226	05/26/2020	2017-186	

UCI Beall
Applied Innovation

5270 California Avenue / Irvine,CA
92697-7700 / Tel: 949.824.2683