

"Multi-Target Directed Drug for Alzheimer's"

VCU #10-071

VIRGINIA COMMONWEALTH UNIVERSITY Market Need

Applications

- Treatment of Alzheimer's disease
- Inhibit amyloid- β oligomers, oxidative stress, bio-metals and lipid rafts
- Potential to slow the progression of Alzheimer's disease
- Diagnostic Imaging of beta-amyloid plaques

Advantages

- Multi-targeted approach to treat Alzheimer's disease
- Studies indicate ligand crosses blood-brain-barrier

Inventors

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Alzheimer's disease (AD) is estimated to afflict 4 million people in the US. The current treatments are limited to symptomatic treatment of cognitive function. The main challenge in AD treatment is its apparent multi-factorial nature. This necessitates the progression from single-target drug development to multi-target.

Technology Summary

Researchers at Virginia Commonwealth University have developed a series of novel compounds that are useful for the treatment and prevention of AD. These compounds target multiple risk factors involved in AD including amyloid- β oligomers (A β O) oxidative stress and bio-metals and cell membrane/lipid rafts. The multifunctional A β oligomerization inhibitors (BMAOIs) strategy targeting CM/LR and other factors involved in the etiology of AD might be an ideal approach to overcome the limits of traditional single-target based approach.



Technology Status

Patent issued: U.S. rights are available - 9,260,473

Please see journal article- Lenhart et al. J. Med. Chem. 2010, 53, 6198-6209.

This technology is available for licensing to industry for further development and commercialization.