



Southern Illinois University System

### Applications

- Treatment of Neurological Diseases including Alzheimer's Disease

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## Novel Molecules for the Treatment of Neurological Conditions including Dementia and Alzheimer's Disease

It is estimated that 5.4 million people in the U.S. have Alzheimer's Disease and by 2050, this number is projected to grow to 13.8 million. The total cost for patient care in 2016 for people older than 65 with dementia is estimated to be \$236 billion. The global market for therapeutics related to Alzheimer's Disease is expected to be roughly \$13 billion by 2023.

### Invention

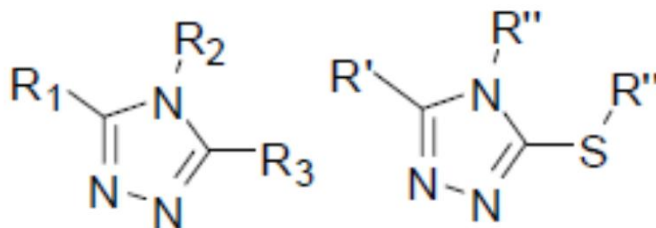
SIU researchers synthesized novel molecules that act as somatostatin subtype 4 (sst4) receptor agonists that can be used to treat neurological diseases such as dementia, Alzheimer's Disease and others. The molecules are 3,4,5-trisubstituted-1,2,4-triazoles and 3,4,5-trisubstituted-3-thio-1,2,4-triazoles. These molecules have been tested and show promising results in vitro and in vivo.

### Key Advantages

- The novel molecules and derivatives thereof constitute a New Molecular Entity for FDA approval.
- The technology includes novel molecular structures that have demonstrated high affinity and selectivity as an sstr4 agonist.
- Positive functional activity at low concentrations have been demonstrated.

### Status

U.S. nonprovisional patent application #16/613,086 was filed November 12, 2019, and complementary filings are pending in Europe and Japan. The technology has been funded by NIH and additional translational studies are being planned. The technology is available for license.



*Other opportunities related to this technology, included but not limited to sponsored and/or collaborative research, may be available. Please reach out to the designated contact identified at left for more information.*