Novel Positron Emission Tomography Agents for Imaging Neurodegeneration

Tech ID: 32208 / UC Case 2020-620-0

TECHNOLOGY DESCRIPTION

Over 10% of people over 65 are affected by neurodegenerative disorders like Parkinson’s disease. These diseases are characterized by a loss of cognitive function over time. Parkinsonian disorders may be either synucleinopathies or tauopathies based on neuropathological characteristics. Currently there are no suitable PET imaging agents for synucleinopathies found in Parkinson’s.

The researchers at the University of California, Irvine, created a new fluorinated positron emission tomography (PET) imaging agent for PET imaging of synucleinopathies and tauopathies. This agent displays unique binding features to the Parkinson’s brain and may therefore serve as an early diagnostic marker.

In vitro and in vivo studies have been performed on human postmortem brain tissue and rodents respectively.

BRIEF DESCRIPTION

New positron emission tomography (PET) imaging agent developed that uniquely binds to synucleinopathies and tauopathies in the Parkinson’s brain and may therefore serve as an early diagnostic marker.

SUGGESTED USES

» Early diagnosis of Parkinson’s or Alzheimer’s disease.
» Unique imaging of brain with neurodegenerative disorders.

FEATURES/BENEFITS

» Currently only suitable PET imaging agent for synucleinopathies.
» Specific binding in Parkinson's disease gray matter.
» Novel PET radiotracer suitable for imaging neurofibrillary tangles.
» Radiosynthesis is a single step.

PATENT STATUS

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OTHER INFORMATION

KEYWORDS

Positron, Emission, Tomography, Agents, Imaging, Neurodegenerative, Neurodegeneration, Synucleinopathies, Tauopathies, Parkinson, Brain, Diagnostic, Marker, PET, Gray Matter, Tangles, Radiotracer, Radiosynthesis, Cognitive

CATEGORIZED AS

» Imaging
» Medical
» Devices
» Diagnostics
» Disease: Central Nervous System