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(54) Title: RADIOPHARMACEUTICAL KETONE AND DUAL TRACER IMAGING IN ALZHEIMER'S DISEASE, COGNITIVE
IMPAIRMENT, AND OTHER CONDITIONS OF ALTERED CEREBRAL METABOLISM

(57) Abstract: In certain aspects, the present disclosure relates to novel radiopharmaceutical ketone molecules, including acetoacetate (AcAc) and/or beta-hydroxybutyrate (BHB), and methods of using one or more radiopharmaceutical ketone molecules or radiopharmaceutical compositions as imaging agents or tracers in positron emission tomography (PET) or combination PET and magnetic resonance imaging (MRI), e.g., as ketone-PET tracers. The methods may be used in diagnostic imaging methodologies in Alzheimer's disease, cognitive impairment, and other conditions of altered cerebral metabolism.



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