

LIGANDS FOR IMAGING CARDIAC INNERVATION

Abstract

Novel compounds that find use as imaging agents within nuclear medicine applications (PET imaging) for imaging of cardiac innervation are disclosed. These PET based radiotracers may exhibit increased stability, decreased NE release (thereby reducing side effects), improved quantitative data, and/or high affinity for VMAT over prior radiotracers. Methods of using the compounds to image cardiac innervation are also provided. In some instances the compounds are developed by derivatizing certain compounds with ^{18}F in a variety of positions: aryl, alkyl, a keto, benzylic, beta-alkylethers, gamma-propylalkylethers and beta-propylalkylethers. Alternatively or additionally, a methyl group is added to the amine, and/or the catechol functionality is either eliminated or masked as a way of making these compounds more stable.

(No Figure to accompany Abstract)