
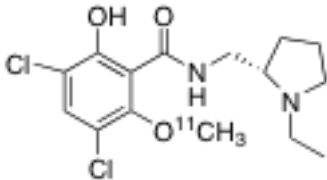
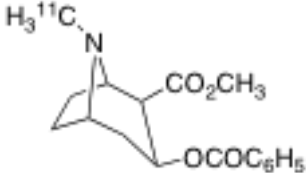
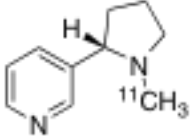
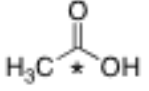
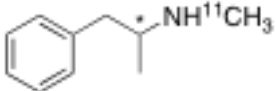
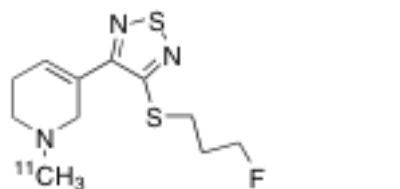


Radiotracers currently produced at Brookhaven. Note that other radiotracers that are described in the literature can also be transferred to our laboratory.

Molecular Target/use	Radiotracer Name	Structure	Chemical Name
Hexokinase/glucose metabolism, cancer, brain function	^{18}F FDG		2-deoxy-2- ^{18}F fluoro-D-glucose
Dopamine D2/D3 receptors/addiction, psychiatric disorders	^{11}C raclopride		3,5-dichloro- <i>N</i> -{[(2 <i>S</i>)-1-ethylpyrrolidin-2-yl]methyl}-2-hydroxy-6- ^{11}C methoxybenzamide
Dopamine transporters / cocaine pharmacokinetics, addiction, neurological disorders	^{11}C cocaine		methyl (1 <i>R</i> ,2 <i>R</i> ,3 <i>S</i> ,5 <i>S</i>)-3-s(benzoyloxy)-8- ^{11}C methyl-8-azabicyclo[3.2.1]octane-2-carboxylate
Blood flow/nicotine pharmacokinetics	^{11}C nicotine		3-[(2 <i>S</i>)-1- ^{11}C methylpyrrolidin-2-yl]pyridine
Acetate metabolism	^{11}C acetate		
Methamphetamine pharmacokinetics	^{11}C methamphetamine		<i>N</i> - ^{11}C methyl-1-phenylpropan-2-amine

Muscarinic M2
receptors/ aging,
Alzheimer's disease

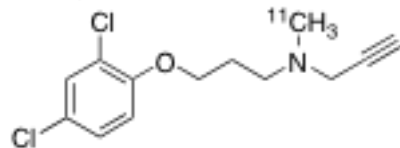
[¹¹C]TZTP



3-(3-(3-Fluoropropyl)thio)-1,2,5-
thiadiazol-4-yl]-1,2,5,6-tetrahydro-1-
[¹¹C]methylpyridine

Monoamine oxidase
A (MAO A)/
addiction,
depression

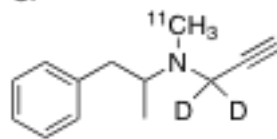
[¹¹C]Clorgyline



N-[3-(2,4-dichlorophenoxy)propyl]-*N*-
[¹¹C]methyl- prop-2-yn-1-amine

Monoamine oxidase
B (MAO B)/
addiction,
depression

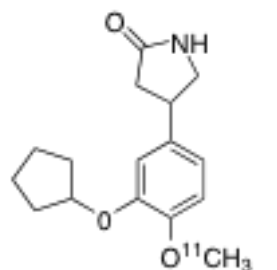
[¹¹C]L-deprenyl-D2



L-N-[¹¹C-methyl]α-methyl-N-[2-
propynyl-1,1-²H₂]-benzeneethanamine

Phosphodiesterase 4
(PDE4)/cognition
studies, depression

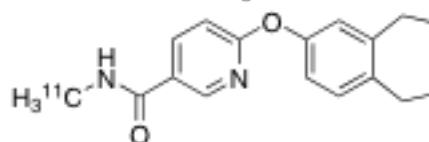
[¹¹C]rolipram



(*RS*)-4-(3-cyclopentylloxy-4-
[¹¹C]methoxy- phenyl)pyrrolidin-2-one

Histamine H3
receptors/drug R&D

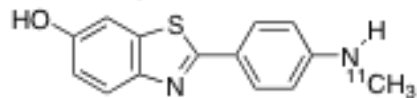
[¹¹C]GSK189254



6-[(3-cyclobutyl-2,3,4,5-tetrahydro-1H-
3-benzazepin-7-yl)oxy]- N-[¹¹C]methyl-
3-pyridinecarboxamide hydrochloride

β-amyloid
plaques/Alzheimer's
disease

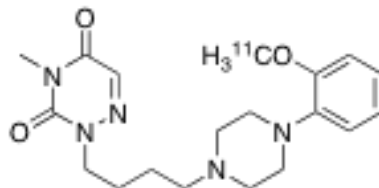
[¹¹C]PIB



2-(4'-[¹¹C]methylaminophenyl)-6-
hydroxybenzothiazole

Serotonin1A (5-HT1A) receptor/depression

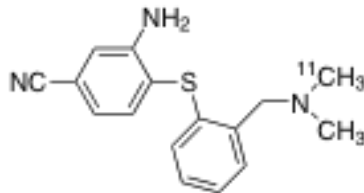
[¹¹C]CUMI



[O-methyl-¹¹C]2-(4-(4-(2-methoxyphenyl) piperazin-1-yl)butyl)-4-methyl-1,2,4-triazine-3,5(2H,4H)dione

Serotonin transporter/depression, psychiatric disorders

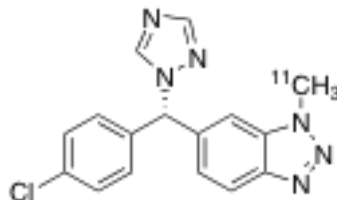
[¹¹C]DASB



3-amino-4-[2-[(di(¹¹C)methyl)amino)methyl]phenyl]sulfanylbenzonitrile

Aromatase (CYP19)/ estrogen metabolism, breast cancer

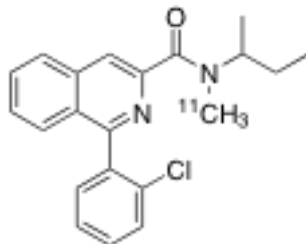
[¹¹C]vorozole



6-[(S)-(4-chlorophenyl)-1H-1,2,4-triazol-1-ylmethyl]-1-[¹¹C]methyl-1H-benzotriazole

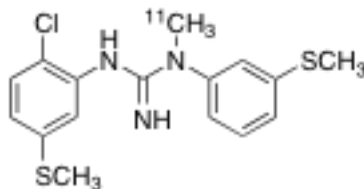
Peripheral benzodiazepine receptor (PBR) or translocator protein (TPSO)/ inflammation, brain injury NMDA receptors/cognitive disorders

[¹¹C]PK11195



N-butan-2-yl-1-(2-chlorophenyl)-N-[¹¹C]methylisoquinoline-3-carboxamide

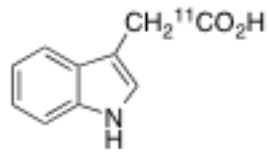
[¹¹C]CNS5161



N'-(2-chloro-5-methylsulfanyl-phenyl)-N-[¹¹C]methyl-N-(3-methylsulfanyl-phenyl)-guanidine

Auxin signaling in plants

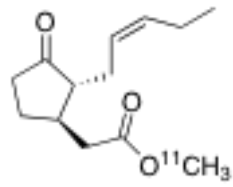
[¹¹C]auxin



3-indolyl[1-¹¹C]acetic acid

Plant signaling studies

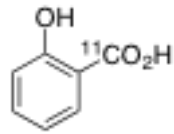
[¹¹C]methyl jasmonate



[¹¹C]Methyl (1R,2R)-3-Oxo-2-(2Z)-2-pentenyl-cyclopentaneacetate

Salicylic acid pharmacokinetics/
Plant signaling studies

[¹¹C]salicylic acid



2-hydroxybenzene-[¹¹C]carboxylic acid