Advion

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- Research and clinical scale production of a wide range of tracers accomplished using one platform

NanoTek Microfluidic Synthesis System

Compounds Synthesized to Date

^{18}F

Radiotracer	Results
FDG	62.49% Yield, >95% RCP, RSD 2.94%, n=12
Fallypride*	88% RCY, 13mCi product, Precursor reduced to 1-2%
FLT	84 % Incorporation pre hydrolysis, 18% TCY of final product post hydrolysis and HPLC
FIAU*	12mCi desired product from 150mCi, 115 minutes, No HBr
Altanserin	50 % RCY , Precursor reduced 50%
2FA*	Ave. product yield of 115 mCi from 700mCi
FCH*	2x yield cf conventional system
^{18}F-Labeled Ligand for Imaging Brain Peripheral Benzodiazepine Receptors	(N-fluoroacetyl-N-(2,5-dimethoxybenzyl)-2-phenoxyaniline), 85% RCY, 40µg precursor for preclinical study
[^{18}F] FEPPA*	90% RCY, 50% TCY. Made 1 GBq
F-18 Benzoic Acid	RCP> 95%
FAZA	80% RCY Fluorination at 100 deg C
F-18 Butyl Azide	80% RCY Fluorination at 160 deg C
FDG Peptide	85% RCY in 5 mins

^{11}C

Radiotracer	Results
Flumazenil *	RCY 93%
N- Methylspiperone *	RCY 66%
DAA 1106*	RCY 60%
Raclopride **	>55% Incorporation Yield , Precursor reduced 50%>85% >85% Incorporation
DTBZ**	Yield , Precursor reduced >90%
Proprietary Carbonylation	Labelling of compound which resisted conventional means, 45% conversion factor
[^{11}C] DASB*	RCY 85%
Amide production via Palladium(0)-mediated carbonylations*	80% Urea at 100 deg C, 70% Amide at 200 deg C

^{99m}Tc

Radiotracer	Results
Thiazole–based tridentate bifunctional chelate*	BTV Ligand: ^{99m}Tc = 1000:1, 160ng ligand consumed, > 90% RCP (cf. mw 40%)

*Customer site

**Produced simultaneously on one system; clinical and pre-clinical doses

Radiochemical Yield (RCY) refers to the percentage of the product which is labelled in the desired radiochemical form, as assessed by an analytical technique such as TLC or HPLC.

Total Chemical Yield (TCY) refers to the percentage of input activity which is collected as labelled radioactive product.