

## Washington University School of Medicine PET Nuclear Pharmacy and Cyclotron Facility

Website: <https://www.mir.wustl.edu/research/research-support-facilities/cyclotron-facility>

### Tier 1 Radiopharmaceuticals on active production list: made regularly with relatively high volume

[C-11] BTA(PIB)	Indicated use as an amyloid imaging agent
[C-11] DTBZ	Marker of dopaminergic terminal densities in striatum, also in islet beta cells in pancreas
[C-11] NMB	Indicated use as an imaging agent for D2 receptors
[F-18] AV1451	Tau imaging agent (requires special approval)
[F-18] FDG	Imaging agent of glucose uptake
[F-18] F2 Dopa (Fluorodopamine)	Imaging agent of movement disorders, brain malignancies, neuroendocrine tumors, pheochromocytoma, pancreatic adenocarcinoma, etc.
[O-15] Carbon Monoxide	Inhalation of O-15-labeled CO is indicated as an imaging agent of blood volume (CBV).
[O-15] Oxygen	Inhalation of O-15 labeled O <sub>2</sub> is indicated as an imaging agent oxygen extraction.
[O-15] Water	Indicated use as an imaging agent of blood flow.

### Tier 2 Radiopharmaceuticals on as needed basis: made occasionally with relatively low volume. Require one-on-one consultation with customer to determine production needs and price.

[C-11] CHO (Choline)	Imaging agent of prostate cancer
[C-11] Acetate	Myocardial metabolism and a tumor imaging agent in prostate cancer
[C-11] Glucose	Glucose utilization imaging agent
[C-11] Leucine	Metabolism
[C-11] Palmitate	Myocardial fatty acid metabolism
[C-11] PBR28	Imaging agent for inflammatory processes involving macrophage activation.
[C-11] Raclopride	As a reversible imaging agent of D2/3 receptors.
[F-18] FFNP	Indicated use as an imaging agent that binds to progesterone receptors (PgR)
[F-18] ISO-1 (Sigma-1)	Imaging agent for evaluation of the proliferative status of solid tumors.
[F-18] NOS	Used to evaluate the feasibility of imaging cellular iNOS activity.
[N-13] Ammonia	To evaluate myocardial perfusion

### Tier 3 Radiopharmaceuticals with start-up cost. In-depth consultation with facility directors is needed.

[C-11] PKAB	An antagonist imaging agent for Kappa opioid receptor
[C-11] NNC 112	Potential of a selective D1-dopamine receptor antagonist
[C-11] PK1195	A high-affinity ligand for the peripheral benzodiazepine receptor (PBR)
[C-11] CFT	A dopamine transporter imaging agent
[F-18] VAT (Zhude Will Tu)	To quantify the vesicular acetylcholine transporters in the brain synapses in the CNS.
[F-18] FAA (FluorBetaOx)	Indicated use to measure beta oxidation of fatty acids in the myocardium
[F-18] FES (Fluoroestradiol)	Indicated use as an imaging agent of estrogen receptor content in breast tumors.
[F-18] FLT	A nucleoside analog to image cellular proliferation.
[F-18] FTP	A dopamine D3-receptor imaging agent
[F-18] FTT FluorThanatrace	An imaging agent of PAR activity. May select patient for PARP inhibition treatments.
[F-18] FHBG	Imaging the expression of HSV1-tk or HSV1-sr39tk
[F-18] NaF	Imaging of bone abnormalities
[Cu-64] ATSM	Imaging hypoxia
[Zr-89] Herceptin	HR2+ Breast CA

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