Table 1. Examples of Reactor-Produced Radioisotopes of Current Interest for Therapy

Radioisotope	Half-life	Target	Comment
Arsenic-77 (From Germanium-77)	1.62 days	Ge-76	Phosphorus Analogue
Californium-252	2.645 years	Curium-244→248	Neutron Sources
Dysprosium-166 (Parent of Holmium-166)	3.4 days	Dy-164	Synovectomy/Bone Pain
Gold-199 (From Platinum-199)	3.14 days	Pt-198	Antibodies
Holmium-166	26.8 hours	Ho-165 (nat.)	Various Therapeutic Applications
Iridium-192	74.02 days	Ir-191	Brachytherapy
Lutetium-177	6.71 days	Lu-176	Antibody Labeling
Iodine-125	60 days	Xe-124	Therapy of Prostatic Carcinoma
Osmium-194	6 years	Os-192	Therapy research
Palladium-103	16.96 days	Pd-102	Therapy of Prostatic Carcinoma
Phosphorus-32	14.29 days	S-32	Multiple Applications
Platinum-193*m*	4.33 days	Pt-192	Pharmaceutical Research
Platinum-195*m*	4.02 days	Pt-195	Pharmaceutical Research
Rhenium-186	3.77 days	Re-185	Antibodies/Bone Pain Palliation
Samarium-145	340 days	Sm-144	Ocular Melanoma Therapy
Samarium-153	1.93 days	Sm-152	Bone Pain Palliation
Scandium-47	3.42 days	Ti-46	Antibody Labeling
Tin-117*m*	13.6 days	Sn-116 or -117	Bone Pain Palliation
Strontium-89	50.55 days	Sr-88	Bone Pain Palliation
Silver-111 (From Palladium-111)	7.47 days	Pd -110	Antibodies
Tungsten-188 (Rhenium-188 Daughter)	69 days	W-186	Bone Pain/Antibodies/ Synovectomy