

25. Advanced Concepts in PET
1 unit, Jason Lewis, October 31, 2025

Diagnostic Radiopharmaceuticals

Radionuclides and nuclide production

Target and platform identification

Preclinical studies and translation

Clinical application

Discussion Paper:

Tendler S, Dunphy MP, Agee M, O'Donoghue J, Aly RG, Choudhury NJ, Kesner A, Kirov A, Mauguén A, Baine MK, Schoder H, Weber WA, Rekhtman N, Lyashchenko SK, Bodei L, Morris MJ, Lewis JS*, Rudin CM*, Poirier JT*. First-in-human imaging with [⁸⁹Zr]Zr-DFO-SC16.56 anti-DLL3 antibody in patients with high-grade neuroendocrine tumors of the lung and prostate. *Lancet Oncology*, 25, 1015-1024, 2024.

Review Paper:

Keinänen O, Nash AG, Sarrett SM, Sarparanta M, Lewis JS, Zeglis BM. Emerging Radiopharmaceuticals in Clinical Oncology in "Nuclear Oncology – Pathophysiology and Clinical Applications - 3rd Edition", Eds. Volterrani D, Erba PA, Strauss HW, Mariani G, Larson SM. Springer. ISBN 978-3-319-26067-9, 169-216, 2022.