



**Showcasing research from the laboratories of Drs. Nikki Thiele and Frankie White at Oak Ridge National Laboratory, USA and Prof. Daniel Thorek at Washington University in St. Louis, USA.**

**PYTA: a universal chelator for advancing the theranostic palette of nuclear medicine**

This work reports the chelation properties of PYTA with  $^{225}\text{Ac}$ ,  $^{177}\text{Lu}$ ,  $^{111}\text{In}$ , and  $^{44}\text{Sc}$ , a “superfecta” of complementary but chemically distinct radiometals for targeted alpha and beta therapy, single-photon emission computed tomography, and positron-emission tomography, respectively. In vitro and in vivo studies reveal PYTA to rapidly bind and stabilize these radiometals, establishing proof-of-principle for the use of PYTA in targeted theranostic radiopharmaceuticals. Image courtesy of Adam Malin, Oak Ridge National Laboratory.

### As featured in:



See Frankie D. White, Daniel L. J. Thorek, Nikki A. Thiele *et al.*, *Chem. Sci.*, 2024, 15, 11279.