

**Ivis Chaple Gore, Ph.D.**  
**Assistant Professor, Department of Nuclear Engineering**  
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**Abstract**

Dr. Ivis Chaple Gore received her Ph.D. in Biochemistry from the University of Alabama at Birmingham, under the mentorship of Dr. Suzanne Lapi. Her graduate research focused on the production and characterization of titanium-45 labeled radiopharmaceuticals for the diagnosis of PSMA+ prostate cancer. Dr. Chaple Gore then completed a postdoctoral position in the Inorganic, Isotope, and Actinide Chemistry Group at Los Alamos National Laboratory (LANL) under the mentorship of Dr. Michael Fassbender and Dr. Veronika Mocko. During her time at LANL, she worked on developing ionic liquid impregnated resins for the separation of actinides and lanthanides, as well as the development of High-Performance Liquid Chromatography (HPLC) based separation methods for the isolation of terbium isotopes from irradiated dysprosium targets.

She joined the University of Tennessee Knoxville (UTK) in 2022 as a tenure-track assistant professor in the Department of Nuclear Engineering, where is she working towards developing a radiochemistry center of excellence at UTK, including new courses focused on teaching student radiochemical methods of analysis and techniques, as well as bringing up the new radiochemistry labs in the Department of Nuclear Engineering.

Her current work focuses on the development of novel radiopharmaceuticals for Positron Emission Tomography (PET) imaging of disease states, such as cancer. She is currently working on characterizing a zirconium-89 labeled radiopharmaceutical for early detection of Somatostatin Receptor (SSTR+) neuroendocrine tumors (NETs). She is also interested in identifying novel molecular targets for receptor specific imaging and therapy of Head and Neck Squamous Cell Carcinoma (HNSCC), with a focus on using copper-64 and copper-67 based theragnostic agents. In addition to this, she is also interested in developing novel extraction chromatography methods for separation of medically relevant lanthanides and actinides from each other, for use in nuclear medicine imaging and therapy.