

To further enhance the effectiveness of radioligand therapy (RLT), new prostate-specific membrane antigen (PSMA) targeting radiopharmaceuticals utilizing alternative radionuclides are under active investigation. One promising alternative to the established ^{177}Lu is the use of ^{161}Tb . A key advantage of ^{161}Tb is its emission of a higher proportion of low-energy conversion and Auger electrons, which may contribute to enhanced therapeutic effectiveness. First clinical insights into the dosimetry, efficacy, and safety of ^{161}Tb -PSMA-617 RLT in patients with metastatic castration-resistant prostate cancer (mCRPC) provide encouraging evidence for its potential as a next-generation PSMA-targeted treatment.