

Radioligand therapy (RLT)

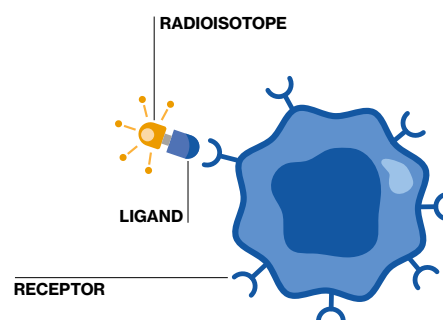
A **radioligand** combines a targeting compound, the **ligand**, that binds to a specific marker or receptor mostly expressed on the surface of target cancer cells, with a **radioisotope**.^{1,2}

What are radioligands?

Radioligands can be used for diagnostic imaging and therapeutic applications (together known as theranostic), both of which have the same precision-based approach. This allows healthcare professionals to use radioligand imaging to visualize the target cancer cells and select specific patients eligible for radioligand therapy.^{1,2}

Different isotopes and ligands can be combined to diagnose, monitor and/or treat a variety of cancers—similar to interchangeable toy building blocks.¹

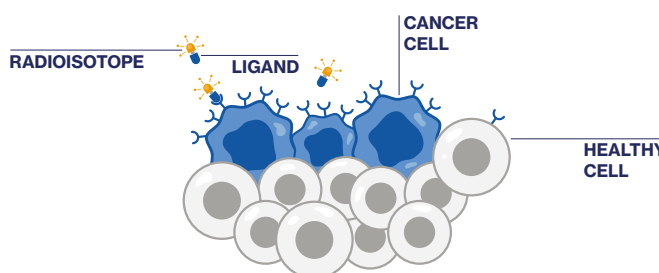
At Novartis, we are investigating these building blocks to understand the possibilities of RLTs in cancer care.



A “see it, treat it” approach to cancer care

The ligand directs the radioisotope to the target cancer cells expressing the receptor, even when they have spread throughout the body.^{1,2}

Once the radioligand reaches the cancer cell, it aims to incapacitate the cancer cells, while limiting impact on nearby healthy cells.^{1,2}



What are the benefits of RLTs?

RLTs specifically binds cancer cells or cells of the tumor microenvironment and are usually well-tolerated.^{1,2} This precision approach aims to improve quality of life and extend people's lives.¹

RLT: Making the promise of next-generation medicines a reality today

RLT is a breakthrough therapy that has transformed the approach to care for people living with certain types of cancer.^{1,2}

Pluvicto® (lutetium (¹⁷⁷Lu)-vipivotide tetraxetan) in combination with androgen deprivation therapy (ADT) with or without androgen receptor (AR) pathway inhibition is indicated for the treatment of adult patients with progressive prostate-specific membrane antigen (PSMA)-positive metastatic castration-resistant prostate cancer (mCRPC) who have been treated with AR pathway inhibition and taxane-based chemotherapy.³

The most common adverse reactions include: fatigue, dry mouth, nausea, anaemia, decreased appetite and constipation.³

References

1. Aboagye EO, Barwick TD, Haberkorn U. Radiotheranostics in oncology: Making precision medicine possible. *CA Cancer J Clin*. 2023;73(3):255-274. doi:10.3322/caac.21768
2. Duan H, Jagaru A, Aparici CM. Radiotheranostics - Precision Medicine in Nuclear Medicine and Molecular Imaging. *Nanotheranostics*. 2022;6(1):103-117. doi:10.7150/ntno.64141
3. SmPC Pluvicto ENG / NL