Radioligand Therapies Market to See Significant Growth with Emerging Innovations by 2034 | DelveInsight

Radioligand Therapies Market Outlook: Anticipating Growth Through Emerging Treatments by 2034

LAS VEGAS, NEVADA, UNITED STATES, December 26, 2024 /EINPresswire.com/ -- The Radioligand therapies market is projected to experience rapid growth due to the expansion of indications for already approved therapies, increased R&D activities. Additionally, the competitive landscape is relatively sparse and the regulatory pathway for approval will likely involve extensive clinical trials to demonstrate safety and efficacy.

DelveInsight's Radioligand therapies Market Insights report includes a comprehensive understanding of current treatment practices, emerging Radioligand therapies, market share of individual therapies, and current and forecasted Radioligand therapies market size from 2020 to 2034, segmented into 7MM [the United States, the EU4 (Germany, France, Italy, and Spain), the United Kingdom, and Japan].

Radioligand Therapy Recent Developments

In October 2024, Sanofi entered into a partnership with Orano Med, a subsidiary of the Orano Group and a leader in developing targeted alpha therapies for oncology. The collaboration aims to combine their expertise in fighting rare cancers and accelerate the development of next-generation radioligand therapies.

Key Takeaways from the Radioligand therapies Market Report:

As per DelveInsight's analysis, the Radioligand therapies market is anticipated to grow at a significant CAGR by 2034.
Following its approval in 2022, PLUVICTO (another radioligand therapy) recorded full-year sales of USD 980 million, just shy of reaching blockbuster status in its first year. This PSMA-directed therapy has shown impressive results in clinical settings.
Radioligand therapy (RLT) is an innovative treatment modality that combines the power of radioisotopes with a target-seeking ligand to deliver radiation directly to cancer cells that express a specific target, even when these cells have spread throughout the body. Administered via intravenous infusion, RLT aims to damage or destroy cancer cells while minimizing the impact on surrounding healthy tissues. This targeted approach has the potential to significantly improve

the therapeutic outcomes for cancer patients.
Several other radioligand therapies are currently under clinical evaluation. One example is Lu-PNT2002, developed by Eli Lilly, which is in the developmental stage and is expected to receive approval during the forecast period.
In March 2024, Novartis announced the acquisition of Mariana Oncology, a biotech company focused on developing radioligand therapies for cancer. The deal, valued at USD 1 billion, includes additional potential payments of up to USD 750 million based on the completion of pre-specified milestones.
In October 2023, Eli Lilly acquired Point Biopharma for USD 1.4 billion, expanding its oncology pipeline. Through this acquisition, Lilly gained control of Point's lead asset, PNT2002, a radioligand therapy targeting the prostate-specific membrane antigen (PSMA), currently being tested in patients with metastatic castration-resistant prostate cancer who have progressed after hormonal treatment. This therapy uses the beta-emitting radioisotope lutetium-177.
In March 2024, AstraZeneca announced plans to acquire Fusion Pharmaceuticals for USD 2 billion. This acquisition is intended to accelerate the development of next-generation radioconjugates (RCs) for cancer treatment, bringing new expertise and advanced capabilities in actinium-based radioconjugates to AstraZeneca's portfolio.
In January 2024, the FDA approved Novartis's automated radioligand therapy production plant for PLUVICTO, which is used in the treatment of prostate cancer.
Also in January 2024, InHealth launched the UK's first relocatable radioligand therapy service, further expanding access to this innovative treatment.
In 2018, the US FDA approved LUTATHERA (lutetium Lu 177 dotatate), marking the first radiopharmaceutical approved for the treatment of gastroenteropancreatic neuroendocrine tumors (GEP-NETs). Then, in 2024, it became the first medication specifically approved for pediatric patients with GEP-NETs. In the first nine months of 2023, LUTATHERA generated over USD 450 million in sales, reflecting a 34% year-over-year growth. Novartis believes LUTATHERA has the potential to reach USD 1 billion in peak sales as a first-line therapy.
Major players in the radioligand therapy market, including Eli Lilly, Curium, AstraZeneca/Fusion, and several others, are actively engaged in the development and production of radioligand therapies, which hold the potential to significantly shape and expand the market in the coming years.

Discover which therapies are expected to grab the Radioligand therapies market share @ Radioligand therapies Market Report

https://www.delveinsight.com/report-store/radioligand-therapies-market-forecast?utm_source=einpresswire&utm_medium=pressrelease&utm_campaign=kpr

Radioligand therapies Market Dynamics

The radioligand therapy (RLT) market is poised for significant growth in the coming years, driven by several factors. These include the rising number of cancer diagnoses, increased awareness of

radioligand therapy, a growing pipeline of RLTs in clinical trials, and heightened interest from major pharmaceutical companies.

RLT represents an emerging treatment modality for various cancer types, demonstrating promising results in improving progression-free survival and quality of life in patients with neuroendocrine tumors. Additionally, RLT has shown to improve overall survival in metastatic castration-resistant prostate cancer (mCRPC) and has recently been incorporated into cancer care guidelines for these indications.

Beyond these applications, RLT holds substantial potential for treating other forms of cancer, including aggressive or rare types, particularly metastatic diseases that currently lack effective treatment options.

Several radioligand therapies, such as LUTATHERA, PLUVICTO, XOFIGO, and ZEVALIN, have already received approval from the US FDA. LUTATHERA was the first FDA-approved radioligand therapy for the treatment of gastroenteropancreatic neuroendocrine tumors (GEP-NETs) in adult patients and, more recently, was approved for use in pediatric patients.

PLUVICTO was approved by the FDA in 2022, becoming the first targeted radioligand therapy for patients with metastatic castration-resistant prostate cancer (mCRPC). It achieved sales of over USD 950 million in its initial launch phase.

Novartis currently has two FDA-approved RLTs available globally and continues to expand its RLT pipeline, with 15+ clinical trials either underway or planned. The company has also been active in acquiring other companies with promising RLTs in development. For example, AstraZeneca acquired Fusion Pharmaceuticals, which is advancing its RLT, FPI-2265, currently in Phase II/III clinical trials.

Key players like AstraZeneca, Eli Lilly, Curium, and others are also actively involved in the development of RLTs targeting various cancers, including prostate and pancreatic cancer.

Overall, radioligand therapy represents an exciting new class of cancer treatments with significant potential for further development. As ongoing clinical studies mature over the next few years, the understanding of RLT's role in cancer therapy will deepen, potentially revolutionizing the treatment landscape for a wide range of cancers.

Learn more about the FDA-approved Radioligand therapies @ Radioligand therapies Drugs

Radioligand Therapy Marketed Drugs

LUTATHERA (lutetium Lu-177 dotatate): AAA USA/Novartis

LUTATHERA is the first radioligand therapy specifically approved for children with gastroenteropancreatic neuroendocrine tumors (GEP-NETs), offering new hope to young patients battling this rare cancer. In Europe, it is approved for the treatment of unresectable or metastatic, progressive, well-differentiated (G1 and G2), somatostatin receptor-positive (SSTR-positive) GEP-NETs in adults, and in Japan, it is approved for SSTR-positive neuroendocrine tumors (NETs).

This radioactive drug works by binding to the somatostatin receptor, which is found on certain tumor cells. After binding to the receptor, LUTATHERA is internalized by the cell, allowing the radiation to directly damage the tumor cells.

PLUVICTO (lutetium Lu-177 vipivotide tetraxetan): Novartis

PLUVICTO is the first FDA-approved targeted radioligand therapy (RLT) for patients with metastatic castration-resistant prostate cancer (mCRPC). It combines a targeting ligand with a therapeutic radioisotope to specifically target cancer cells.

The active component of PLUVICTO is lutetium-177 vipivotide tetraxetan, which is a radionuclide linked to a ligand that binds to prostate-specific membrane antigen (PSMA), a protein commonly expressed in prostate cancer cells, including those in mCRPC. When PLUVICTO binds to PSMA-expressing cells, the beta-minus emissions from lutetium-177 deliver targeted radiation to the tumor cells and surrounding tissue, causing DNA damage that can ultimately lead to cell death.

Emerging Drugs in the Radioligand therapies Inhibitors Market

177Lu-PSMA-I&T: Curium

177Lu-PSMA-I&T is a radioligand therapy that targets the prostate-specific membrane antigen (PSMA), which is expressed on more than 85% of prostate cancer cells. The therapy is highly selective for PSMA, ensuring that the radioisotope specifically targets prostate cancer cells. Once the radioligand attaches to the PSMA-expressing cancer cell, the radioisotope is internalized, where its radioactive properties cause DNA damage, ultimately leading to the death of the cancer cell.

Lu-PNT2002: Eli Lilly/Point Biopharma

Lu-PNT2002 is a PSMA-targeted radioligand therapy based on lutetium-177. It combines the PSMA-I&T ligand with no-carrier-added lutetium-177, a beta-emitting radioisotope. In December 2022, Lantheus Holdings acquired the exclusive worldwide commercialization rights (excluding certain Asian territories) for 177Lu-PNT2002 from Point Biopharma. In April 2023, the FDA

granted Fast Track designation for 177Lu-PNT2002 for the treatment of metastatic castration-resistant prostate cancer (mCRPC).

To know more about Radioligand therapies clinical trials, visit @ Radioligand therapies Treatment Drugs

Radioligand therapies Overview

Radioligand Therapy (RLT) is a form of targeted nuclear medicine designed to recognize and treat diseases, particularly cancers. RLT delivers radiation directly to cancer cells that express specific molecular targets, offering a precision oncology approach to treatment. This targeted method represents a significant advancement in cancer therapy, focusing radiation specifically on tumor cells while minimizing damage to surrounding healthy tissue.

Radioligand therapies consist of two primary components: a radioisotope and a cell-targeting compound (or ligand). These components are chemically linked together. The radioisotope is a radioactive particle that releases radiation, which directly targets and destroys cancer cells. The ligand attaches to specific molecular markers on the surface of cancer cells, guiding the radioisotope precisely to the tumors that express these targets.

Therapeutic radioisotopes are typically produced in nuclear reactors or generators, after which they are transported to a specialized production facility. There, the radioisotope is conjugated with the targeting ligand to create the final therapeutic compound. The resulting radioligand is then placed into vials, undergoes rigorous quality control testing, and is packaged in lead-shielded containers for safe transport. The ready-to-use therapy is then shipped directly to hospitals or clinics for patient administration.

Some of the most common examples of radioligand therapies include XOFIGO and PLUVICTO, both used for the treatment of prostate cancer, and ZEVALIN, which is used to treat lymphomas.

Radioligand therapies Inhibitors Market Outlook

Radioligand Therapy Treatment works by utilizing a targeting compound specifically designed to bind to proteins or receptors that are overexpressed on the surface of cancer cells. This approach allows for the precise delivery of radiation to tumor cells, minimizing damage to healthy tissues.

Here’s how radioligand therapy typically works:

1. Target Identification: Researchers identify specific proteins or receptors that are overexpressed on the surface of cancer cells. These proteins serve as the target for the radioligand, ensuring that the therapy is directed specifically to cancerous cells.

2. Radioligand Development: A targeting molecule (ligand) is developed or chosen to bind specifically to the identified target protein or receptor. This ligand is then conjugated to a radioactive isotope, often via a chemical linker, forming the radioligand.

3. Administration: The radioligand is administered to the patient, usually through an intravenous (IV) infusion. The compound circulates throughout the bloodstream, binding to the targeted proteins on the cancer cell surfaces.

4. Localization: Once the radioligand binds to the cancer cells, it accumulates at the tumor sites. The radioactive isotope delivers radiation directly to the cancerous cells while sparing surrounding healthy tissues.

5. Radiotherapy: Once localized inside the cancer cells, the radioactive isotope emits radiation, which damages the DNA of the cancer cells, leading to their destruction.

6. Elimination: Any unbound radioligand is cleared from the body through urine or feces, reducing the risk of radiation exposure to healthy tissues.

One of the key advantages of radioligand therapy is its ability to deliver high doses of radiation directly to cancer cells while minimizing harm to surrounding healthy tissue, which helps reduce side effects typically associated with conventional radiation treatments.

Scope of the Radioligand therapies Market Report
Study Period: 2020–2034
Radioligand therapies Report Coverage: 7MM [The United States, EU5 (Germany, France, Italy, Spain, and the United Kingdom), and Japan]
Radioligand therapies Therapeutic Assessment: Radioligand therapies current marketed and emerging therapies
Radioligand therapies Market Dynamics: Conjoint Analysis of Emerging Radioligand therapies Drugs
Competitive Intelligence Analysis: SWOT analysis and Market entry strategies
Radioligand therapies Unmet Needs, KOL's views, Analyst's views, Radioligand therapies Market Access and Reimbursement

Discover more about Radioligand therapies drugs in development @ Radioligand therapies Clinical Trials

Table of Contents

1. Radioligand therapies Market Key Insights
2. Radioligand therapies Market Report Introduction
3. Executive Summary of Radioligand therapies
4. Key Events
5. Radioligand therapies Market Forecast Methodology
6. Radioligand therapies Market Overview at a Glance in the 7MM
7. Radioligand therapies: Background and Overview
8. Radioligand therapies Target Patient Pool
9. Radioligand therapies Marketed Drugs
10. Radioligand therapies Emerging Drugs
11. Seven Major Radioligand therapies Market Analysis
12. Radioligand therapies Market Access and Reimbursement
13. SWOT Analysis
14. KOL Views
15. Radioligand therapies Unmet Needs
16. Appendix
17. DelveInsight Capabilities
18. Disclaimer
19. About DelveInsight

Kritika Rehani
DelveInsight Business Research LLP
+1 469-945-7679
email us here