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Targeted Radiopharmaceutical Therapy: Advances, Investment Dynamics, and Future Directions—Part 1

ABSTRACT

Radiopharmaceuticals have emerged as a transformative modality in precision oncology, with growing potential in non-oncologic indications, such as severe autoimmune diseases and rheumatology, because of their capacity for targeted therapeutic delivery. As radiopharmaceutical therapy continues to evolve, advancements in radiochemistry, radionuclide production, and clinical applications are reshaping the field. This article is the first of a 2-part series, offering a comprehensive analysis of recent developments in radiopharmaceutical therapy, examining both scientific innovations and investment trends that are driving industry growth. The paper outlines emerging trends, success factors, and strategic considerations from an investment perspective. Venture capital and strategic investors are reshaping the competitive landscape and enabling innovation. Supply chains, production capacity, and clinical trial infrastructure are key to scalability. As the field matures, aligning innovation, commercialization, and regulation is critical. Radiopharmaceuticals face executional challenges but offer significant opportunities for investors, patients, and health systems.

doi.org/10.51219/URForum.2026.salahaldeen-m-a-aljafreh | ISBN: 978-1-917892-52-0