Special Issue

Targeted Radiotracers for Molecular Imaging and Therapy in Cancer

Message from the Guest Editors

Targeted radiotracers are vital in precision oncology, allowing non-invasive visualization and treatment of diverse cancers. These agents, comprising radionuclides linked to peptides, antibodies, or small molecules, selectively bind to cancer-associated targets such as somatostatin receptors, PSMA, HER2, CXCR4, and integrins. They enable patient stratification. personalized therapy, and treatment response assessment. This Special Issue highlights recent advances in the design, evaluation, and clinical translation of targeted radiotracers for diagnostic and therapeutic use. Emphasis is placed on the therapeutic concept—using the same molecular scaffold for both imaging and therapy—as exemplified by ⁶⁸Ga-/¹⁷⁷Lulabeled PSMA and DOTATATE. Such approaches enhance treatment planning, dosimetry, and response monitoring. Expanding radiotracer development continues to strengthen their role in oncology. This Special Issue provides an overview of current challenges and future directions in molecular imaging and targeted radionuclide therapy.

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About the Journal

Message from the Editor-in-Chief

Cancers is an international online journal addressing both clinical and basic science issues related to cancer research. The journal is publishing in Open Access format, which will certainly evolve to ensure that the journal takes full advantage of the rapidly changing world of information and knowledge dissemination. It publishes high-quality clinical, translational, and basic science research on cancer prevention, initiation, progression, and treatment, as well as other related topics, particularly to capture the most seminal studies in the rapidly growing area of immunology, immunotherapy, and tumor microenvironment.

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