Special Issue

Advanced Radiopharmaceuticals for Cancer Imaging and Therapy

Message from the Guest Editor

Advanced radiopharmaceuticals are transforming cancer imaging and therapy by providing highly targeted treatments. Targeted Alpha Therapy (TAT) utilizes alpha-emitting radionuclides to deliver potent radiation doses directly to cancer cells, sparing surrounding healthy tissue. Radiotherapy using beta-emitting radionuclides like Lutetium-177 and Yttrium-90 is another promising approach. Positron Emission Tomography (PET) imaging isotopes play a crucial role in cancer diagnosis and treatment planning. PET imaging provides detailed metabolic and molecular information about tumors, enabling precise staging and monitoring of treatment response. Overall, the integration of TAT, beta-emitting radionuclides, and PET imaging isotopes represents a significant advancement in personalized cancer therapy, offering improved outcomes through precise targeting and innovative imaging technologies.

Keywords

- targetted alpha therapy
- radiotherapy
- positron emission tomography
- isotopes

Guest Editor

Dr. Arif Gulzar

Center for Advanced Imaging, University of Queensland, Brisbane, QLD 4072, Australia

Deadline for manuscript submissions

30 November 2025

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/214629

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

mdpi.com/journal/applsci

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Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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