Special Issue

The Roles of Deep Learning in Cancer Radiotherapy

Message from the Guest Editor

The incorporation of deep learning into cancer radiotherapy represents a groundbreaking evolution in oncology. Advanced algorithms and extensive datasets can enhance precision and efficiency in radiation treatments, including tumor detection, target and critical organs delineation, treatment planning, quality assurance, and outcome prediction. This Special Issue explores diverse deep learning applications in radiotherapy, such as tumor and organ segmentation, dose prediction, and adaptive radiotherapy. Potential topics include, but are not limited to:

- Deep learning algorithms for tumor detection;
- Deep learning algorithms for tumor and organ segmentation;
- Artificial Intelligence driven automatic treatment planning;
- Predictive modeling of radiotherapy outcomes;
- Adaptive radiotherapy guided by deep learning;
- Integration of radiomics and deep learning in oncology;
- Deep learning algorithms for quality assurance procedures;
- Clinical validation of AI-driven radiotherapy tools;
- Challenges and solutions in implementing deep learning in clinical practice.

Guest Editor

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Message from the Editor-in-Chief

Cancers (ISSN 2072-6694) is an international, online journal addressing both clinical and basic science issues related to cancer research. The journal will continue its 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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