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Accelerator-based medical isotope production: An overview of emerging trends and novel initiatives

Wednesday 13 August 2025 11:30 (30 minutes)

Recent advances in drug development and radionuclide research have notably expanded the role of nuclear medicine in treating cancer over the past decade. Throughout such research and development efforts, the list of drug moieties and cancer types under investigation is paralleled by a similarly expansive list of radionuclides. This is because the suitability of a radionuclide for a therapeutic radiopharmaceutical application will depend on many factors including, but not limited to, the decay mode (e.g. α- vs β-emitter), the particle emission range, the matching of its half-life to the pharmacokinetics of the drug, and the co-emission of gamma rays of appropriate energy for imaging. Moreover, the successful adoption into clinical practice hinges on sustained, reliable, and cost-effective access to these radionuclides –a task which is not trivial. To this end, this presentation provides an overview of emerging trends in radionuclides (noting ²²⁵Ac, ²¹¹At, ¹⁷⁷Lu, and ⁶⁷Cu as examples), alongside novel initiatives for accelerator-based production strategies.

Please consider my poster for contributed oral presentation

Yes

Would you like to submit this poster in student poster session on Sunday (August 10th)

No

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

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