

**14/11/2025, 10:00 a.m.**IFIN-HH/ELI-NP Training and Conference Center  
*Sydney Benjamin Galès* main conference hall

# The LhARA initiative; harnessing laser-driven ions to transform ion beam therapy

## Professor Kenneth Long

Director of Centre for the Clinical Application of Particles, Imperial College London

The Laser-hybrid Accelerator for Radiobiological Applications (LhARA) initiative, is conceived as a novel, uniquely-flexible facility dedicated to the study of the biological impact of proton and ion beams.

It is the flagship of the LhARA collaboration's initiative to:

- Deliver a systematic and definitive radiation biology programme;
- Prove the feasibility of laser-driven hybrid acceleration; and
- Lay the foundations for the transformation of clinical practice of ion beam therapy.

As part of its initiative, the collaboration is implementing a proof-of-principal beam-line, "PoPLaR", on the SCAPA facility at Strathclyde University. The initial configuration of the beam was commissioned over the summer of 2025 and first biological exposures are planned for the autumn. The status of PoPLaR beam line will be presented and its role as a springboard for the LhARA initiative in which the STFC laboratories have a central role to play will be described.