Radiobiological Science and technology

Work Package 7:

- M7.1: Develop beamline and bespoke facilities at SCAPA for radiobiology experimentation M30
- M7.2: Preliminary results from cell survival/DNA damage experiments at SCAPA M36
- M7.3: Development of RBEs of laser-accelerated protons in established cell lines M48
- M7.4: Assessment of DNA damage repair kinetics and immunopeptidomic analysis. M48

Work package 2A: Laser-driven proton and ion source

- M2A.1: Demonstration of beam delivery to end station. M36

Work package 4: Ion-acoustic dose mapping

- M4.3: Iterative reconstruction methods M42
- M4.5: LhARA ion-acoustic test results M48

Work package 5: Novel end-station development

- M5.4: Construct transportable beam delivery end-station M42.
- M5.6: Report on LhARA stage 1 beam monitoring system M48.

ITRF/LhARA Facility R&D

Work package 2: Laser-driven proton and ion source

- M2.3: Investigation and demonstration of 10 Hz debris and damage challenges at ICL M36
- M2.4: Assessment of beam performance during PoPLaR experiment on SCAPA M48

Work package 3: Proton and ion capture

- M3.3: Progress report on increased voltage penning trap simulations and operation. M36
- M3.4: Final report higher voltage penning trap operation. M48

Work package 0 & 6: Design and integration

- M6.2: Final review of R&D work M42.

Management

Work Package 0 & 1. Project management

Deliverables plus internationalisation

- D5 Initial PoPLaR and LhARA de-risk update M30
- D6 Interim PoPLaR and LhARA de-risk update M36
- D7 Final PoPLaR and LhARA de-risk update M42
- D8 PoPLaR and LhARA de-risk report M48

Work Package 8:

- Creation of collaborative international clinical research group M40
- Wider public engagement - All party parliamentary group on radiotherapy M48