Distributed, precise, and personalised, particle-beam therapy for 2050

Note: lead authors clearly need to bring in other key members of the collaboration. I’ve noted some below. The leads should be points of contact.

# A. Research Vision and Ambition

**Lead author:** KL

* Vision of full LhARA initiative;
* LhARA as demonstrator.

# B. National Importance

**Lead author:** KL

* Clinical impact
* Technological impact
* Industrial impact
* Scientific impact
* International importance … i.e. broaden heading in section at the end

# C. Application co-creation

## C1. LhARA consortium

**Lead author:** KL

* May not be allowed as it identifies “us”;

## C2. Overview of five-year R&D programme

**Lead author:** KL

* Defined in pre-CDR, but review needs of end-station
* (Co-)creation of impact clinical impact in medium term, i.e. before full initiative

## C3. Preparatory phase work programme

### C3.1: End-to-end specification of end-station, instrumentation, and diagnostics

**Lead authors:** RMcL, AP

***Key contacts (e.g.):***

* Specification: JPa, YP; Instrumentation: PW, TG, AH, …; Diagnostics: JM, CW, …; Imaging: AK, …; cell imaging: AK

### C3.2: Proto-acoustic imaging

**Lead authors:** JB, PB

### C3.3: Evaluation of benefits of LhARA initiative and initial optimisation of delivery-phase programme

**Lead authors:** PP

***Key contacts (e.g.):***

* RFI: AK; ICR: ??; CXH/HH: ??

## C4. Preparatory phase stakeholder engagement plan

### C4.1: Patient and public involvement strategy

**Lead authors:** GJ, HH

### C4.2: Clinician engagement strategy

**Lead authors:** StG

### C4.3: Industrial engagement strategy

**Lead authors:** FJ, ST

### C4.3: Funding agency and decision-make engagement strategy

**Lead authors:** PP, KL

## C5. Governance framework

**Lead author:** KL