## Laser-hybrid Accelerator for Radiobiological Applications (LhARA)

## The LhARA collaboration

- 1 nan
- 2 Patrick G Johnston Centre for Cancer Research, Queens University Belfast, 97 Lisburn Road, Belfast, BT9 7AE
- 3 School of Mathematics and Physics, Queen's University Belfast, University Road, Belfast, BT7 1NN, Northern Ireland, UK
- 4 Dept of Medical Physics and Biomedical Engineering, University College London, WC1E 6BT
- 5 Department of Medical Physics, University Hospital Birmingham Foundation NHS Trust, Edgbaston, Birmingham, B15 2TH
- 6 Department of Cancer and Genomic Sciences, College of Medicine and Health, University of Birmingham, Edgbaston, Birmingham, B15 2TT, UK
- 7 School of Physics and Astronomy, University of Birmingham, Edgbaston, Birmingham, B15 2TT, UK
- 8 DG Unit, CERN, CH-1211 Geneva 23, Switzerland
- 9 Cockcroft Institute, Sci-Tech Daresbury, Keckwick Lane, Warrington WA4 4AD, UK
- 10 Department of Physics, Lancaster University, Bailrigg, Lancaster LA1 4YW, UK
- 11 Department of Physics, University of Liverpool, Liverpool L69 7ZE, UK
- 12 Department of Physics and Astronomy, The University of Manchester, Oxford Rd, Manchester, M13 9PL, UK
- 13 Cockcroft Institute for Accelerator Science, Keckwick Ln, Daresbury, Warrington WA4 4AD
- 14 Central Laser Facility, STFC Rutherford Appleton Laboratory, Harwell Oxford, Didcot OX11 0QX, UK
- 15 Christie NHS Foundation Trust, Wilmslow Rd, Manchester, M20 4BX
- 16 Corerain Technologies, 14F, Changfu Jinmao Building (CFC), Trade-free Zone, Futian District, Shenzhen, Guangdong, China
- 17 Berkeley, USA
- 18 Imperial College London, CRUK PPI group, Charing Cross Hospital, London W6 8RF
- 19 The Institute of Cancer Research, 123 Old Brompton Road, London, SW7 3RP, UK
- 20 INFN Catania, Via Santa Sofia,64 95123 Catania Italy
- 21 Department of Aeronautics, Imperial College London, Exhibition Road, London SW7 2AZ, UK
- 22 Department of Computing, Imperial College London, Exhibition Road, London SW7 2AZ
- 23 Imperial College London, CRUK PPI group, Charing Cross Hospital, London W6 8RF
- 24 Dept. Radiation Physics and Radiobiology, Imperial College Healthcare NHS Trust, London, UK
- 25 Imperial College NHS Healthcare Trust, Department of Clinical Oncology, Charing Cross Hospital, London W6 8RF, UK
- 26 Department of Physics, Imperial College London, Exhibition Road, London SW7 2AZ, UK
- 27 Department of Surgery and Cancer, Imperial College, Hammersmith Hospital London W12 0NN
- 28 Institut Curie-Orsay Research Center, Bat a Campus d'Orsay, 91400 Orsay, France
- 29 John Adams Institute, University of Oxford, Keble Rd, Oxford, OX1 3RH.
- 30 John Adams Institute, Royal Holloway University of London
- 31 The John Adams Institute for Accelerator Science, Department of Physics, Imperial College London, Exhibition Road, London SW7 2AZ, UK
- 32 Leo Cancer Care, Broadview, Windmill Hill, Hailsham, East Sussex, BN27 4RY, UK
- 33 Institute of Systems, Molecular and Integrative Biology, University of Liverpool, Biosciences Building, Crown Street, Liverpool L69 7BE
- 34 Department of Physics, University of Liverpool, Liverpool L69 7ZE, UK
- 35 Division of Cancer Sciences, Faculty of Biology, Medicine and Health, The University of Manchester, The Christie Proton Therapy Centre, The Cristie NHS Foundation Trust, Wimslow Rd, Manchester M20 4BX
- 36 Maxeler Technologies Limited, 3 Hammersmith Grove, London W6 0ND, UK
- 37 National Physical Laboratory, Hampton Road, Teddington, TW11 OLW, UK
- 38 Department of Materials, University of Oxford, Parks Road, Oxford OX1 3PH, UK
- 39 Department of Oncology, University of Oxford, Old Road Campus Research Building, Roosevelt Drive, Oxford, OX3 7DQ, UK
- 40 Particle Physics, Denys Wilkinson Building, Keble Rd, Oxford, OX1 3RH
- 41 Department of Physics, Imperial College London, Exhibition Road, London SW7 2AZ, UK
- 42 Department of Physics, University of Surrey, 388 Stag Hill, Guilford, GU2 7XH, UK

- 43 School of Physical and Chemical Sciences, Queen Mary University of London, Mile End, London E1 4NS, UK
- 44 Rosalind Franklin Institute, Harwell Campus, Didcot, OX11 0QX, UK
- 45 Department of Physics, Royal Holloway University of London, Egham, Surrey, TW20 0EX, UK
- 46 STFC Daresbury Laboratory, Daresbury, Cheshire, WA4 4AD, UK
- 47 Central Laser Facility, STFC Rutherford Appleton Laboratory, Harwell Oxford, Didcot OX11 0QX, UK
- 48 ISIS Neutron and Muon Source, STFC Rutherford Appleton Laboratory, Harwell Oxford, Didcot OX11 0QX, UK
- 49 Particle Physics Department, STFC Rutherford Appleton Laboratory, Harwell Oxford, Didcot OX11 0QX, UK
- 50 STFC Daresbury Laboratory, Daresbury, Cheshire, WA4 4AD, UK
- 51 Department of Radiation Oncology, Stanford University, Stanford, CA 94305, USA
- 52 Department of Physics, SUPA, University of Strathclyde, Glasgow G4 0NG, UK
- 53 Department of Biomedical Sciences, Faculty of Science and Engineering, Swansea University, Singleton Park, Swansea, SA2 8PP
- 54 Department of Physics, Faculty of Science and Engineering, Swansea University, Singleton Park, Swansea, SA2 8PP
- 55 University of Santiago de Compostela, Center for Research in Molecular Medicine and Chronic diseases, 15782, Santiago de Compostela, Spain
- 56 Institut Curie, Universit PSL, CNRS UMR3347, Inserm U1021, Signalisation Radiobiologie et Cancer, 91400 Orsay, France