

From: no-reply-survey@imperial.ac.uk
Subject: Great Exhibition Road Festival 2025
Date: 3 November 2024 at 21:38:45 GMT
To: k.long@imperial.ac.uk
Reply-To: festival@imperial.ac.uk

Thanks for submitting your application for the 2025 Great Exhibition Road Festival.
We will be in touch with you in the new year with next steps

A copy of your application can be found below. If you have any questions please
don't hesitate to contact us at festival@imperial.ac.uk.

Regards.

Imperial Festival Team

Recipient Data:

Time Finished: 2024-11-03 14:38:42 MST

ResponseID: R_2oQRy2LqmfebvU8

Link to View Results: [Click Here](#)

URL to View Results: <https://imperial.fra1.qualtrics.com/apps/single-response-reports/reports/>

if4sG5i0T6sA3ncWNjGp7Q7BabFvGeBmguftUD27Zy1y%2E9W%2E3DaE0HFd
2E1azUBuclMw%2EDcm60z3JrPImsOnizu0s0b5wybBbxdVay-
czAr8FMpJFgit2lg0OIQZMAqmNEr7CFLmBvDFZDFo4Q8gZhbnfaKmGgGqKGc
kBf13Ozigqu99Ry620rAJvrTaxdJQilnwHjchiRBxV7GSoZYnXZjoR9zerHMpmJ-
lc6rr28e5yhKjZHziXu-
YaoR9UryqUXXXKIMVfFAspoaXLR0MKBaUR4j8cndtL2Ibl9Pc8MzczUwdSGI4xW
mQvhX8YokKZN4EdR6SLwkCUcuUQlg01w

Response Summary:

Before filling in this form with your festival ideas, could you confirm the following:

Lead Contact:

Kenneth LONG

Lead contact email:

k.long@imperial.ac.uk

Lead contact CID number:

00151560

Lead contact mobile number: Are you happy to share a number to contact you on over the Festival w...

Yes -- 07890595138

Additional contact (someone else who might be involved in the activity who we can contact just in...

Pat Price

Additional contact email:

PatPrice@patprice.co.uk

Group, department, centre or institute:

Division of Cancer, Department of Surgery and Cancer

Does your proposed Festival activity idea relate to research carried out in collaboration with an...

Yes (please let us know which individuals, community groups, organisations or institutions you are collaborating with below) -- The LhARA Collaboration; see <https://ccap.hep.ph.ic.ac.uk/trac/wiki/Research/LhARA/Governance/InstituteBoard>

If yes, is this research part of a Horizon Europe funded project?

No

Working title of your festival activity (max 5 words, needs to be a public-friendly and fun title...

Laser focussed health and science

What type of activity are you proposing to engage the public at the Festival (N.B. there is more...

Interactive Exhibit / Hands on demonstration

Please identify which audience group your activity is most suitable for. The Festival attracts a...

Young people (13 - 17)

Adults (26+)

Young people (18 - 25)

Please provide a brief overview of your broad research area and why it would be of interest to wi...

Proton and ion beams are fantastic for killing cancer, but today, proton- and ion-beam therapy relies on huge, expensive accelerators. We're changing the game with "LhARA", an exciting new hybrid system that uses laser beams!

A laser beam is energy in its purest form. By focusing this energy in a tiny spot, proton and ion beams with unique properties can be created. Our research programme aims to harness these unique properties to create a new type of

radiotherapy to treat cancer and to provide new capabilities for the advancement of science and innovation!

Our collaboration unites brilliant scientists and engineers from a variety of fields: theoretical and experimental laser-plasma physicists, accelerator scientists, detector and instrumentation developers, biologists, clinicians, and experts in artificial intelligence, robotics, automation and control. Together, we're harnessing lasers to deliver a range of high-energy particles, first to research, then to tackle hard-to-treat cancers. And, we are developing fully automated machines that rapidly deliver personalised radiation therapy in real time to each patient.

Our mission to transform particle-beam therapy leverages cutting-edge science and engineering. The realisation of our vision will not only advance cancer treatment but will also spark discoveries, lead to new ideas, and drive the creation of novel techniques that can be used to advance scientific exploration.

Isn't it amazing how exciting science can bring so much hope and innovation?

Why do you want to take part in the Festival? (Please limit your response to max 300 words)

Our wish to take part in the Festival stems from:

- Our commitment to communicate our excitement in the ambitious multidisciplinary journey on which we've embarked to the public, patients, students, fellow scientists, industrialists, influencers, decision makers ... i.e. as broad an audience as possible!
- A recognition of the need to create a buzz around our vision and to communicate the potential for clinical benefit and the opportunity to create new capabilities for accelerator-based science and innovation;
- An ambition to show how a multidisciplinary scientific collaboration can make a huge contribution to healthcare and lay the foundations of future scientific investigation; and
- Our wish to demonstrate the breadth of benefit that will be derived from our programme and to highlight the potential for the creation of scientific and clinical impact in the short term.

What are you planning to do as your activity at the Festival? Please describe in as much detail a...

We will have:

- An interactive, virtual-reality tour of the Laser-hybrid Accelerator for Radiobiological Applications (LhARA) that we are developing to serve the Ion Therapy Research Facility (the ITRF);
- A set of 3D-printed components that can be used, with "outline instructions" to "build your own" LhARA;
- A series of videos presented by members of the team describing a variety of

LhARA's subsystems , the scientific and technical challenges, and the steps we are taking to address each challenge; and

- Models of state-of-the-art particle beam therapy systems and a forward-looking concept for what a clinical system based on the LhARA technique might be like.

In addition, we plan to have games such as "Top Trumps" tailored to create discussion around our key messages and the key challenges that the realisation of our vision presents.

What would you like visitors to gain from interacting with you and your activity on the day? What...

The ideal outcome will be that visitors will:

- Engage with our vision and recognise the clinical benefits that our programme aspires to deliver;
- Be encouraged to support our ambition to create a world-leading radiotherapy research laboratory;
- Understand how research in laser physics, accelerator physics, and biological sciences underpins our project, and how they are being used to develop new, cutting-edge technologies and techniques for healthcare;
- Gain insight into how the LhARA collaboration's world-leading researchers address these complex scientific challenges;
- Learn how the LhARA collaboration's multidisciplinary and unified approach to the creation of scientific excellence is essential for us to deliver our vision to create real societal, technological, and scientific impact; and
- Participate in fun activities that will inspire young audiences to be at the heart of the curiosity-led science of the future.

Will your proposed festival activity be contributing to ongoing or forthcoming research? For exam...

Yes

Do you consider your proposed Festival activity to include elements of participatory research? Me...

I will be partnering with non-academics to deliver my festival activity.

I will be co-designing/co-producing my festival activity with non-academics.

If you are using participatory approaches, please explain how -- We plan to collect statistics on the way in which the exhibit is received and on ways in which it can be improved. We also plan to collect statistics on the perception of LhARA and the public's enthusiasm for supporting our long-term vision and goals. In addition, we plan to collect statistics to support diversity analysis and to inform discussions of how to attract students into STEM.

Do you think your proposed activity might require some ethical approval (i.e. are you collecting...

No, I am not collecting data for research purposes

Please indicate what equipment / resources you might need to run your activity? e.g. tables, floo...

We are likely to require a floor space of roughly 4 x 4 m², mains power for the video displays and virtual reality system, chairs for the VR participants or a fenced area to minimise risk of collisions, and table space for the models and games.

Can you explain what steps you are taking to reduce the environmental impact of your Festival act...

All components of our exhibit at the Great Exhibition Road Festival have been conceived as part of a “travelling exhibition” with which we seek to communicate our initiative across the country. Therefore all items will be constructed such that they can be transported and re-used. Our communication plan defines our exhibit at the Great Exhibition Road Festival as the “gala opening” of our public engagement strategy.

We are expecting the Festival to get busy at certain times over the weekend, and with two long da...

On Saturday 7 June 2025 9

On Sunday 8 June 2025 9

Does your proposed Festival activity link to any upcoming academics papers or the launch of new f...

Yes (please provide more details) -- We shall have recently published the Conceptual Design Report for LhARA to serve the ITRF. In addition, the present wave of funding has allowed progress to be made in a number of aspects of the programme (ion-acoustic dose-profile measurement, laser-driven ion capture, transport and acceleration, studies of the biological impact of spatially fractionated, and perhaps, laser-driven beams). It is our intention to bring this to publication over the next 9 months or so. This together with the ongoing media interest in cancer and technology stories is likely to ensure main stream media coverage.

Would you like to sign up to the Societal Engagement newsletter? This monthly newsletter features...

Yes (if so please add email address to send the newsletter) --
k.long@imperial.ac.uk

By submitting this form, I consent to the processing of my information for the purpose of applyin...

Check here