



Science & Technology  
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# Developing medical LINACs for challenging environments

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# What does STFC do?



STFC is a UK research council, funding excellent science in particle physics, nuclear physics and astronomy. We run state-of-the-art science facilities in the UK, and organise UK access to international facilities such as CERN, FAIR ...

We also run an extensive Public Engagement and science communication programme to inspire and attract people to consider STEM subjects.



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# We work with universities

STFC funds university research projects and postgraduate training awards in astronomy, particle physics, space science and nuclear physics

University of Liverpool particle physics clean room



- Around 1,700 researchers in these disciplines based in UK universities and our labs
- Provide universities with the opportunity to apply for contracts with major international science facilities
- Our university partnerships and laboratories deliver our science programme



# STFC and GCRF

**STFC is allocated £4m/year initially for 2 years to be awarded to ODA compliant projects and activities;**

- Challenge-led disciplinary and interdisciplinary research
- Strengthening capacity for research and innovation within both the UK and developing countries

**2 of these funded activities are in conjunction with CERN**



# CERN Summer Students

STFC sponsored 40 students from ODA countries to attend the CERN Summer school



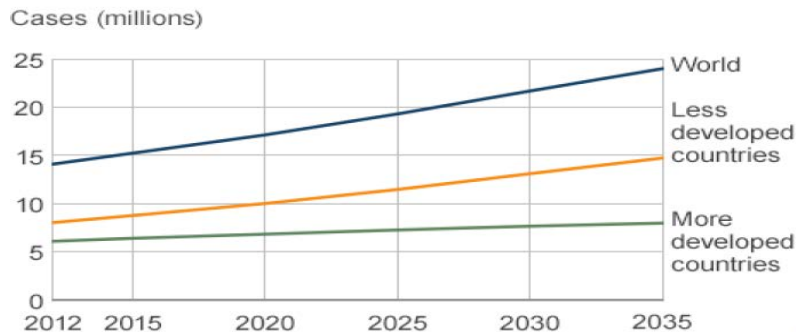
# Developing medical LINACs for challenging environments

- Cancer is a critical societal issue
- 65-70% are likely to occur in low and middle income countries
- Radiotherapy is a fundamental component of effective cancer treatment and control.

GLOBOCAN 2012: Estimated Cancer Incidence, Mortality and Prevalence Worldwide in 2012



## Predicted Global Cancer Cases



Source: WHO GloboCan



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# Bridging the Gap Workshop October 2017

- Understanding the problem
- Oncologists, medical physicists  
accelerator physicists
- Attendees from

Outcome – 5 seedcorn projects



# Burying the complexity

## Workshop March 2018 - Manchester

- Progress update on the 5 projects





## Next Step

On-going applications to different funding schemes

Botswana Workshop March 2019