For office use only Grant ID:

College of Radiographers Industrial Partnership Research Awards

Interim Report Form

Please use the tab key to move to next question

1. Principal Investigator	Lauren Evans
2. Project Title	To investigate the safe levels of radiotherapy administered to patients who have an implanted cardiac device.
3. Amount of Award	£4061.40

4. Did you spend the money as indicated in your proposal (if not why)?

The funding was to allow my time release for 82 hours, to provide funding for members of the pacemaker team to be released (varying amount of hours) and to purchase equipment vital to the testing regime. As a research team we used the CoRIPS money for that purpose - myself and members of the pacemaker team used our time to design and build of phantom and start to devise a testing protocol.

5. Did you reach your intended project outcomes (if not why)?

No – the actual research has not been conducted, but it will start imminently. However, as a research team we have made considerable advances in this field of research. As principal investigator I have established a diverse research team; Velindre Oncology, University of Hospital Wales - Cardiology and Cardiff University - School of Healthcare Studies and School of Engineering. The aim of this research was to irradiate and test cardiac devices and their sensitivity to both ionising radiation and electromagnetic interference. The results of which will inform clinical guidelines for the safe use of radiotherapy in cancer patients receiving radiotherapy. As a team, we have come up with the acronym "CORE" - cardiology, oncology, radiotherapy and engineering and have worked with a graphic designer to design a logo.

As the equipment originally purchased, needed significant adaptations (we were not able to obtain any tangible results without taking such measures) I applied and was awarded a further grant for the purchasing of equipment. I enlisted the help of engineers at Cardiff University, who assisted in the development of the phantom and testing equipment and protocol. Once the equipment was ready for testing, it underwent QA testing and be signed off by a risk review team for R&D approval. On gaining this approval, we then had to patent the design and seek IP rights. The next step was to develop the role of the Cardiology team, who with myself are still making adjustments to pacemaker information and devices to be tested. Throughout this period, I was balancing my full-time job as a band 5 radiographer and conducting this research project. However, I was awarded funding to allow my secondment to the University.

I am due to being irradiating the cardiac devices at the start of July and I have arranged a timetable of access to the linear accelerators. It is still my initial intention to test the cardiac leads, cardiac devices and clinical scenario patient set-ups in order to work with the SoR to produce national guidelines for radiotherapy departments when treating patients. On a wider scale, as a team we wanted to collaborate with cardiac device manufactures to develop devices which are less sensitive ionising radiation. This research work would constitute my PhD thesis.

6. What are your significant findings?
Research has not been undertaken yet – irradiating start date July.
7. Have you submitted the work for publication (if so where)?
No
8. Please provide an executive summary of your work (two sides of A4 maximum) **N.B. If you already have a draft or final version of the proposed publication can you please attach.**
N/A

9. Return of application form
Please return this form to:

Valerie Asemah
The Society & College of Radiographers
207 Providence Square
Mill Street
London
SE1 2EW

Or by email at ValerieA@sor.org