

High Quality, Real Time CT Imaging Software (REACT)



THE UNIVERSITY OF
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Medical devices and software: Digital Imaging



> TRL 2-3
> Preclinical

Problem

Current 4DCT image quality is not accurate enough to enable highly targeted radiotherapy treatments. This results in a significant amount of off target radiation during treatment, and patients experiencing higher radiation doses throughout the course of their therapy.

Solution

Software for 4DCT imaging that will take a respiratory signal in real-time and determines when to acquire 4DCT images that reduces imaging dose and trades off image quality with acquisition time.

This is a software which is used to enhance the acquisition of 4DCT images. The purpose is to provide more accurate data to clinicians and imaging specialists for patients with lung cancer or lung disease. This data is then used for diagnostic treatment purposes.

Current results for this technology show:

- 70% reduction in imaging errors
- 50% reduction in radiation dosages

Intellectual Property Status

This technology is protected by Copyright.

Potential Commercial Applications

- Lung cancer patient radiotherapy treatment.

Availability

This technology is available for non-exclusive licensing.

Inventors

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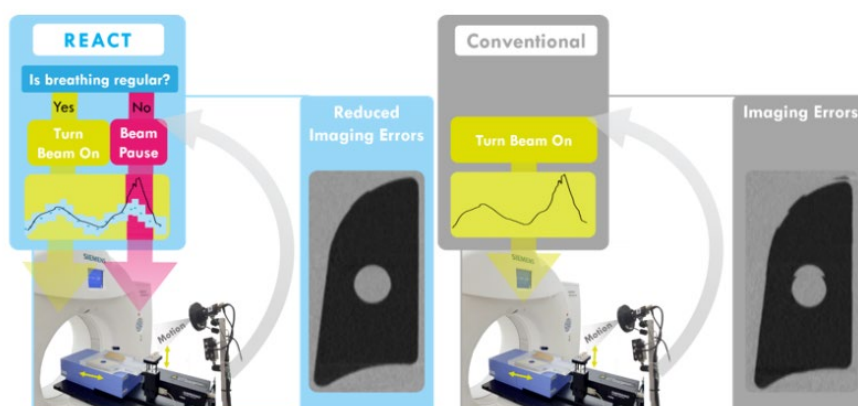
Scientific Data

Additional data and information is available at:

<https://doi.org/10.1007/s13246-022-01193-5>

<https://iopscience.iop.org/article/10.1088/2057-1976/ac9849>

<https://iopscience.iop.org/article/10.1088/1361-6586/abf111>



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