New imaging methods for detecting treatment response in lymphoma

Fact Sheet

Project information

IMAGING LYMPHOMA

Grant agreement ID: 254380
Status: Closed project
Start date: 1 March 2010
End date: 29 February 2012

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FP7-PEOPLE
Overall budget: € 172 740,80
EU contribution: € 172 740,80

Coordinated by:
CANCER RESEARCH UK LBG
United Kingdom

Objective

Assessing treatment response in cancer is the most important single prognostic factor for a patient. Therefore, it is crucial to detect response as early as possible during treatment. Additionally, similar tumour types frequently have markedly different responses to the same therapy. Hodgkin lymphoma, for example, is one of the tumour types where a small group of patients fail to respond or respond poorly to treatment. The early evaluation of a specific treatment allows targeting effective therapy to responding patients while sparing the non-responders from expensive, toxic and unnecessary protocols. While the current method to assess treatment response is to measure tumour shrinkage by imaging, there may exist earlier and potentially more sensitive markers of treatment response based on tumour function. Prof Brindle’s group has an established expertise in this field. This project aims to develop non-invasive and clinically applicable imaging methods for detecting the initial responses of tumors to therapy in a realistic preclinical, genetically engineered mouse model of lymphoma. In this model, tumors arise spontaneously, constituting a better model for the human disease than those used previously. We will treat these animals using current treatment protocols and will use the imaging methods that we develop to assess tumour response. These methods will include a targeted radio-labelled agent that detects dying tumour cells and a novel magnetic resonance method, based on nuclear spin hyperpolarization, in which treatment response is detected through specific changes in tumour metabolism. The best reagents and imaging protocols will be selected for use in possible future clinical trials. Although we are developing these techniques in lymphoma, they could also be used with many other tumour types. We anticipate that in the future these
methods could have significant impact in the clinic, both in drug development and in tailoring treatment to individual patients.

Field of Science

cancer

Programme(s)

FP7-PEOPLE - Specific programme "People" implementing the Seventh Framework Programme of the European Community for research, technological development and demonstration activities (2007 to 2013)

Topic(s)

FP7-PEOPLE-2009-IEF - Marie Curie Action: "Intra-European Fellowships for Career Development"

Call for proposal

FP7-PEOPLE-2009-IEF

See other projects for this call

Funding Scheme

MC-IEF - Intra-European Fellowships (IEF)

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Activity type

Research Organisations

EU Contribution

€ 172 740,80

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