

Grant Writing: Prospects, Pearls, and Pitfalls

Grant Prospects for MRI Research: European Union

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The Seventh Framework Cooperation Programme of the European Commission (total € 32 365 million) provides substantial funding for the thematic area 'Health' (€ 6 050 million).

FP7 is the short name for the Seventh Framework Programme for Research and Technological Development. It is the European Union's main instrument for funding research in Europe and it will run from 2007 to 2013. The EC budget for these seven years is €50.5 billion. FP7 is made up of 4 specific programmes, but the mayor part of the funding is allocated within the Cooperation Programme offering 10 thematic areas including Health. The other three smaller programmes are Ideas (frontier research actions); People (human potential); and Capacities (research capacities). Considerations hereunder only relate to the Cooperation Programme.

Objective of the Cooperation Programme in the Health thematic area is to improve health of European citizens, and to increase and strengthen the European health related industries and businesses. The research focuses on biotechnology, generic tools and medical technologies for human health, translating research for human health and optimizing the delivery of healthcare to European citizens. There is an emphasis on medical imaging in FP7. Three calls for proposal were published until now, the corresponding deadlines for grant submission were April 19th 2007, September 18th 2007, and December 3rd 2008. In the future more calls will be offered within the FP7 programme.

In the first call, in its first chapter “Biotechnology, generic tools and medical technologies for human health” a separate section was dedicated to detection, diagnosis and monitoring. Purpose is to develop visualization, imaging, detection and analytical tools and technologies for biomedical research, for prediction, diagnosis, monitoring and prognosis of diseases, and for support and guidance of therapeutic interventions. Developments should particularly have an impact on noninvasive prediction, diagnosis, monitoring and prognosis of diseases. Projects should develop the necessary principles up to demonstration of proof of principle of specific methodology. All applications should be of benefit to patients and many should involve European industry, in particular small and medium sized enterprises. Included in this section was for example the development of hybrid imaging systems. Four projects on development of hybrid imaging were supported; one of them involves development of PET/MRI.

In the first call, in its second chapter “Translating research for human health” also several opportunities for clinical research involving medical imaging were offered, including MRI. An example is organ imaging in cardiovascular disease:

HEALTH-2007-2.4.2-6: Organ imaging in CVD. Intermodality comparison of noninvasive imaging approaches for the reproducible quantification of cardiovascular function should be performed and tested in an early clinical trial,

to show that imaging measurements are reliable endpoints to use in trials. NOTE: the deadline of this call was September 18th 2007.

In the third FP7 call “Cooperation Work Programme: Health” that was published on September 3rd 2008, a separate section was included on detection, diagnosis and monitoring. The objectives are to develop visualisation, imaging, detection and analytical tools and technologies for biomedical research, for prediction, diagnosis, monitoring and prognosis of diseases, and for support and guidance of therapeutic interventions. The deadline for this call was December 3rd 2008:

HEALTH-2009-1.2-3: Novel MR-compatible PET detectors for simultaneous PET/MRI imaging. The focus should be to develop novel magnetic-field-compatible nuclear detectors for PET imaging, aimed at maximizing the benefits of simultaneous PET/MRI acquisition, which can also be used efficiently and implemented in stand alone PET or SPECT applications. These detectors should operate in high magnetic fields, as used in MRI, without performance degradation, and have high spatial and time resolution. A dedicated integrated readout of high quality should also be developed. The full detector should be compact so as to allow good integration with an MRI system. Globally, it should allow fully exploiting the advantages of both PET and MR technologies in a simultaneous imaging modality and for implementation in both preclinical and clinical/human PET stand-alone systems beyond the state-of-the-art. Active participation of industry, especially SMEs, could lead to an increased impact of the research proposed, and this will be considered in the evaluation of the proposal.

FP7 proposals consist of two parts. Part A contains administrative information about the proposal and participants. Part B is designed to highlight those aspects that will be assessed against the evaluation criteria. It covers, among other things, the nature of the proposed work, the participants and their roles in the proposed project, and the impacts that might be expected. In Chapter 1 of Part B the consortium presents in (maximum) 20 pages the core of the project, knowingly the concept and objectives; the progress beyond the state-of-the-art; and the methodology and associated work plan. For the Cooperation programme, the three evaluation criteria are scientific and technological excellence; potential impact through the development, dissemination and use of project results; and quality and efficiency of the implementation and management. In general, for small or medium-scale focused research projects the requested EC contribution shall not exceed €3 million, for large-scale integrating projects the contribution shall be over €6 million but not exceed €12 million. Participants should represent at least 3 or 4 independent legal entities from at least 2 different member states or associated countries.