

In the framework of a European H2020 MSCA ETN project entitled B-Q MINDED, Biomedical Imaging Group Rotterdam of the Erasmus Medical Center has a **vacancy** for a **full-time**

## **PhD student - Early Stage Researcher (f/m) in the field of quantitative magnetic resonance imaging**

### **About B-Q MINDED:**

B-Q MINDED ([www.bqminded.eu](http://www.bqminded.eu)) is an EU-funded project aiming to develop breakthroughs in quantitative MR imaging such as MR relaxometry and diffusion MRI. B-Q MINDED will offer the selected early stage researchers (ESR) the opportunity to conduct top-notch research in leading academic institutions, hospitals and industry R&D divisions. During the research there will be strong emphasis on career development and on achieving impact. B-Q MINDED has the ambition to turn the developed algorithms into diagnostic solutions for improved health and care.

### **About Biomedical Imaging Group Rotterdam (BIGR)**

The Biomedical Imaging Group Rotterdam (BIGR; [www.bigr.nl](http://www.bigr.nl)) is part of the departments of Radiology and Medical Informatics of the Erasmus MC - University Medical Center Rotterdam, in the Netherlands. BIGR develops and validates novel image reconstruction methods and image analysis techniques for biomedical applications and is internationally at the forefront of quantitative medical image analysis. We offer a dynamic, challenging, and cooperative research environment. We have excellent access to large-scale imaging studies (clinical, epidemiological, and biological) and we collaborate closely with clinical experts from different departments within the Erasmus MC.

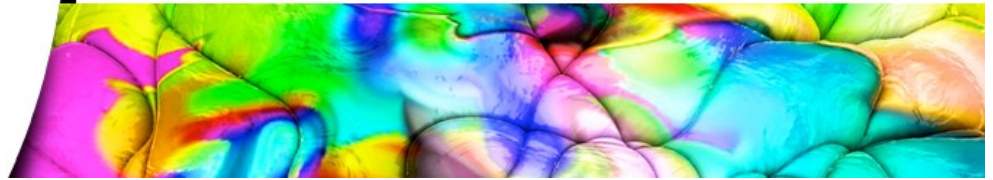
### **Your research - tasks**

Specifically, your research (ESR "1") will improve quantitative MR imaging methods to obtain better information from tissues by integrating motion compensation into the image reconstruction process. This is essential because quantitative brain imaging is increasingly hampered by subject motion due to advancements in MRI hardware. On the one hand these advancements enable the acquisition of higher resolution images, but the acquisitions are ever more sensitive to even small amounts of subject motion. By integrating motion compensation into the quantitative MR reconstruction process, a large fraction of the motion induced distortions can be corrected.

### **Your profile**

- ✓ You have a master's degree in physics, computer science, mathematics, engineering, or related field (if you have not obtained your diploma yet, but expect to do so in the near future, please apply already).
- ✓ Background in statistical signal processing and/or magnetic resonance imaging MRI is appreciated.
- ✓ In view of the international context, mastering of the English language is mandatory.
- ✓ International mobility of researchers is a key concept within the MSCA ETN framework. As such you participate in international meetings, workshops and a secondment programme.
- ✓ You want to tell the world about your novel findings with attractive posters, sparkling presentations and high quality papers.





**Eligibility criteria of the Marie-Sklodowska Curie programme**

- ✓ Early Stage Researcher: At the time of recruitment, you are in the first four years (full-time equivalent research experience) of your research careers and have not yet been awarded a doctoral degree.
- ✓ Mobility rule: At the time of recruitment, you have not resided or carried out your main activity (work, studies, etc.) in the country of the host beneficiary for more than 12 months in the 3 years immediately prior to the recruitment date. Compulsory national service or short stays such as holidays are not taken into account.

**Our offer:**

- ✓ Exciting multidisciplinary research in a collaborative network of top academic and industrial partners.
- ✓ State-of-the-art computing and imaging infrastructure to support your research.
- ✓ You will be enrolled in our PhD training programme.
- ✓ Special focus on career development by offering training in transferable skills such as project management, communication skills, grant writing, exploitation of results, etc.
- ✓ The fellowship is awarded for a period of 4 years.
- ✓ You will benefit of a regular employment contract with a gross monthly living allowance of up to 2874€.

**Additional information**

For additional information about the research project, contact:

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