PARTNERS OF THE MGSAFE PROJECT

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Hannover Medical School
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University of Gothenburg, Sahlgrenska Academy
(Gothenburg, Sweden)

Warsaw University of Technology
(Warsaw, Poland)

MRITools GmbH
(Berlin, Germany)

Syntellix AG
(Hannover , Germany)

SCANCO Medical AG
(Brüttisellen, Switzerland)

Fujifilm Sonosite B.V
(Amsterdam, Netherlands)

BRI.Tech GmbH (BioResorbable Implant Technologies)
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MORE INFORMATION

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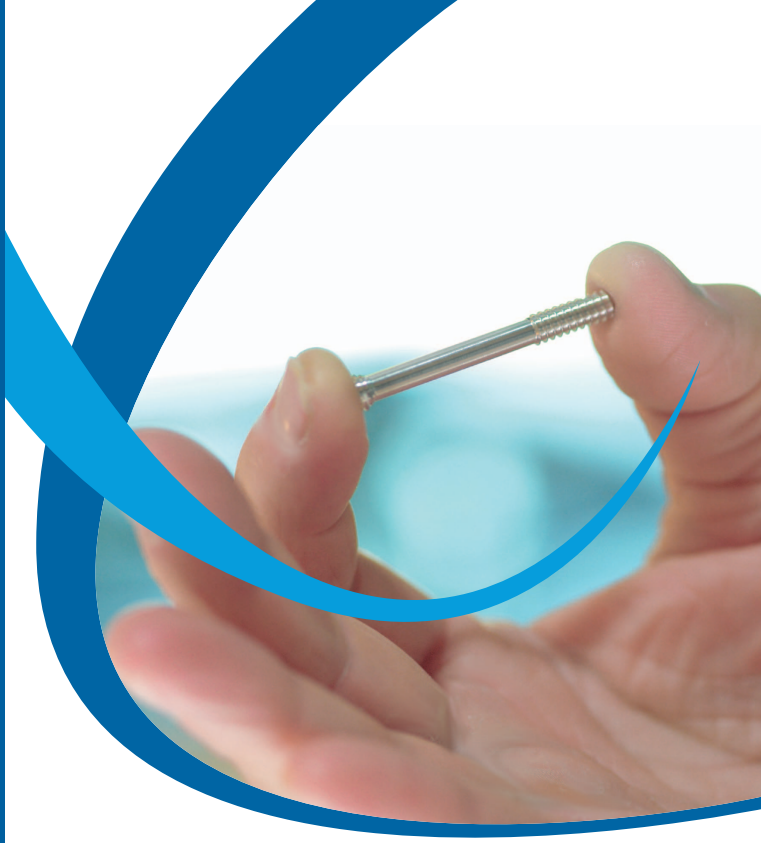
Cover photo: Syntellix AG



MgSAFE

PROMOTING PATIENT SAFETY
by a novel combination of imaging technologies for biodegradable magnesium implants

Marie Skłodowska-Curie Actions

This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 811226.

MgSAFE

CHALLENGES AND GOALS

Biomedical imaging as for example magnetic resonance imaging has gained a significant technological push.

Still, imaging is yet not optimized for the new class of biodegradable magnesium based implants.

Especially these kinds of implants offer many benefits, for example for patients needing trauma or orthopaedic intervention (e.g. to fix fractures) because a second surgery to remove the metal implants after successful healing can be avoided. Why? Magnesium is an essential element required by the human body. It has the advantage that it can selectively dissolve.

Biomedical imaging is fundamental to both diagnosis and a safe therapy, because of the need to monitor the behaviour and effects of the degrading implant materials inside the patient.

In the MgSafe project, new techniques will be established while educating 15 PhD students interdisciplinarily in both imaging and implant technologies.

Ultimately, the work of this ambitious research network is expected to result in the development of new implant products. The new combination of imaging technologies developed within the project is a prerequisite for the desired increase in patient safety.

EXCELLENT TRAINING FOR YOUNG SCIENTISTS

Apart from pursuing scientific development, the European Marie Skłodowska Curie network MgSafe aims at training highly talented doctoral students by providing them a framework of excellent research projects in an international environment.

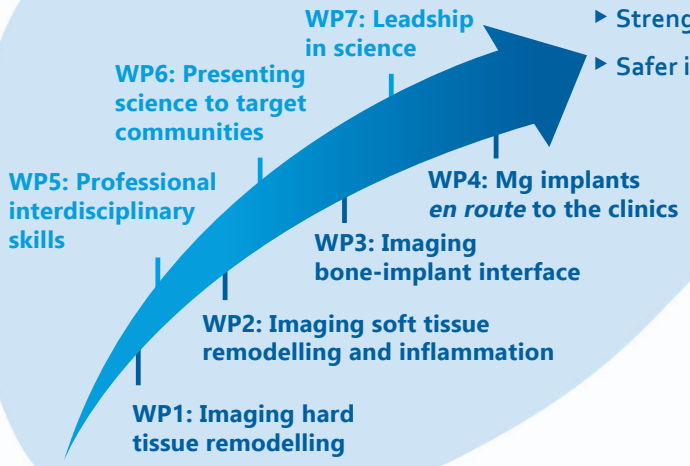
The content of the training programme in MgSafe is divided into three main pillars:

- Professional interdisciplinary skills for the development of medical devices
- Presenting science to various target communities
- Leadership in science and industry

FACTS AND FIGURES

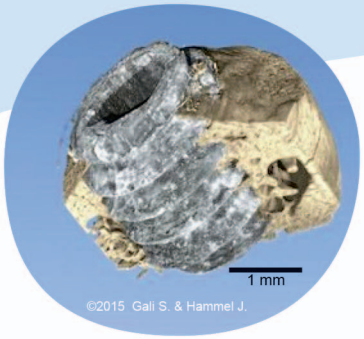
- Duration of the action: 48 months (1 October 2018 – 30 September 2022)
- Grant amount: 3.956.398 €
- Proposal: 811226 – MgSafe
- Topic: MSCA-ITN-2018 – Innovative Training Networks

WORKING PACKAGES (WP)



OBJECTIVES

- Better employability of materials-trained imaging experts
- Strengthening of European leadership in biomedical imaging devices
- Safer implants and higher patient satisfaction



Synchrotron tomography of a magnesium screw in a bone (rat). Synchrotron radiation is up to a million times more brilliant than X-rays in a doctor's practice.