

## PRESS RELEASE



### SENSOR BASED DETECTION OF IMPLANT LOOSENING IN TOTAL HIP REPLACEMENTS

#### Kick-off meeting for SMART-HIP project

Berlin, Germany

24th of February 2014

The 24th of February 2014, Merete MEDICAL GMBH, one of the consortium partners, hosted the SMART-HIP kick-off meeting in their headquarters in Berlin. The consortium is composed of 3 SMEs: Electronics Design Ltd, Merete Medical GMBH, Alhenia AG and 2 RTDs: the Rostock University (UNIVERSITÄTSMEDIZIN ROSTOCK) and Labor Srl- Industrial Research Lab.

The project and its research, officially started on the 1st of February 2014 under Grant Agreement no. 606335 with the Research Executive Agency of the European Commission.



#### The project

The main objective that the SMART-HIP Consortium intends to achieve is the development of a new intelligent hip prosthesis, enabling timely and accurate diagnosis of bone loosening, thus allowing for a fast and reliable support to the orthopaedists while deciding upon revision surgery of joint replacements.

#### Background

A significant amount of total joint replacements fail because the prosthesis becomes loose or because of osteolysis, and the prosthesis must be replaced. Bone loosening is usually diagnosed by radiography and clinical symptoms, but pre-operative radiographic diagnosis by loosening has a sensitivity of 80 %, and a considerable number of revision surgeries are not necessary because loosening of the total joint replacement was diagnosed false positively. Currently clinically applied methods of assessing implant fixation and implant loosening are of suboptimal precision, leading to unsecure indication of revision surgery and late recognition of bone defects.

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#### Consortium

