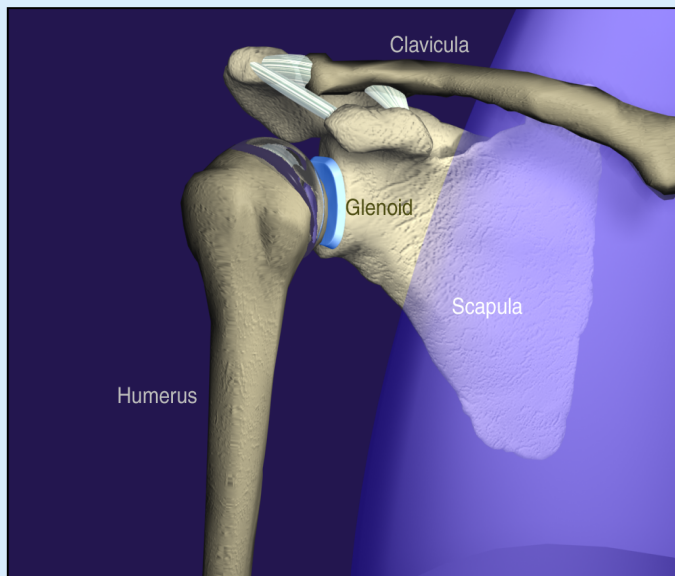


## Introduction

The Department of Orthopaedics of the Leiden University Medical Center (LUMC) uses Medical Research Data Management (MRDM) software, to collect and use clinical research data from orthopaedic surgery. Such data consists of detailed information on the patient, implant, surgery, and follow-up treatment. Based on this data, several orthopaedic indices are defined that are used for surgery and treatment evaluation; for example, the Harris Hip Score and the Knee Society Score. This data is very valuable to determine and improve the success of orthopaedic surgery based on the outcome of a large number of patients.

## The ProMISe application

ProMISe ([promise.clinicalresearch.nl](http://promise.clinicalresearch.nl)) is an Internet based application for the design, maintenance and use of clinical data management projects. Using ProMISe, the design and implementation of single and multi center data management projects is performed without requiring any programming effort. By doing so, the project coordinators and the users can concentrate fully on the clinical contents and logistics of the study at hand. ProMISe is used by the European Blood and Marrow Transplantation Group for an ongoing registry of transplants in over 600 hospitals in Europe, containing 150.000 transplants and 300.000 follow-up records.



## Project goal

The goal of this project is to implement the conversion of clinical research data from MRDM to ProMISe. The following four points are essential for this conversion:

- Implement and verify the orthopaedic scoring functions;
- Develop consistency checks for the conversion results;
- Expand and develop the help functionality;
- Advice on a possible improvement of the user-interface and layout of the research environment.

## What is orthopaedic surgery?

Orthopaedic surgery treats all problems that are concerned with the human support and movement apparatus: bones, joints, muscles, tendons, and ligaments. A common application is joint replacement. At the LUMC 50 shoulder, 75 knee, and 100 hip prostheses are placed yearly.

## The candidates

We would like to meet motivated candidates who are able to work and program accurately. The majority of tasks must be implemented in JavaScript hence such knowledge is preferable (but not required if you have other programming skills). For more information contact:

**P.W.de\_Bruin@lumc.nl**