„Self-organising, hydrated polyelectrolyte multilayer architectures with self-healing potential for implantology - Self-X-for-Implants (FKZ: 13XP5209D)“

The aim of the collaborative research project Self-X-for-Implants is to research self-organising and self-regenerating implant surfaces based on a functional polyelectrolyte multilayer coating system. One of the aims of the novel coating system is to reduce friction and abrasive wear on the articulating surfaces of joint endoprostheses.

The German Federal Ministry of Research, Technology and Space (BMFTR) is funding the project as part of the ‘Biologisation of technology’ funding project. The project consortium consists of Mathys Orthopädie GmbH, Hemoteq AG, the Institut für Bioprozess- und Analysenmesstechnik e.V. iba and the Rostock University Medical Center, Department of Orthopaedics, Biomechanics and Implant Technology Research Laboratory (FORBIOMIT).

Within the subproject ‘Rheological, tribological and biological characterisation of self-organising multilayer coatings’, the Rostock University Medical Center

is carrying out tests on the lubrication properties, capacity to withstand tribological loading and biological compatibility of the coating systems generated in the project.

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