Technology Opportunity, Ref. No. UA-20/062

Novel fixation method for implants

A novel fixation method for implants has been developed which prevents the occurrence of perceptible and visible offsets on the bone surface and provides the possibility to later easily detach the implants.

Keywords  Osteotomy, Bone Fixation, Implants

Inventors  Dr. med. Stefan Stübinger, University of Basel

Reference  in preparation

Background  Trauma or tumor diseases can lead to the loss of large bone structures which have to be replaced by implants. Implants are often customised and manufactured for the affected region using computer tomography data. Generally, the fixation of such implants and the stabilisation of fractures is realised by osteosynthesis plates. This leads to visible and perceptible offsets on the bone surface, which is disturbing for the patients. To prevent this, there is a need for a new fixation method. Moreover, it is desirable that such a fixation is easily detachable in case there is a need for a corrective surgery.

Invention  A new implant fixation method using an eccentric clasp is provided which is embedded into the implant and does not require any elements to be fixed on the implant and bone surface. This fixation is easily detachable in case the implant has to be replaced. A study has shown that the biomechanical stability of the fixation is comparable to existing fixation methods.


Contact  Unitectra, Technology Transfer of University Zurich, Wolfgang Henggeler Steinengraben 5, 4001 Basel, mail@unitectra.ch