Abstract:
The human body is a composite structure, completely constructed of biodegradable materials. This allows the cells of the body to remove and replace old or defective tissue with new material. Consequently, artificial resorbable biomaterials have been developed for application in regenerative medicine. We discuss here advantages and disadvantages of these bioresorbable materials for medical applications and give an overview of typically used metals, ceramics and polymers. Methods for the quantification of bioresorption in vitro and in vivo are described. The next challenge will be to better understand the interface between cell and material and to use this knowledge for the design of "intelligent" materials that can instruct the cells to build specific tissue geometries and degrade in the process.
TUM Einrichtung:
  r Plastische Chirurgie und Handchirurgie

Occurences:
  · Einrichtungen > Fakultäten > Fakultät für Medizin > Kliniken und Institute > Klinik und Poliklinik für Plastische Chirurgie und Handchirurgie (keine SAP-Zuordnung!) > Lehrstuhl für Plastische Chirurgie und Handchirurgie (Prof. Machens) > 2012

entries: