Job application for:

Natural Sciences

MHH:
A06-2  Impedance spectroscopy with cochlea implant electrodes
B02-1  Structure, composition and metagenomic characteristics of dental implant–associated biofilms across patients and over time: identifying new predictors for different health outcomes
B03-3  Development and validation of an adaptive oral multispecies biofilm model
B07-2  Polymicrobial resistance of implant-associated biofilms and anti-biofilm therapy

LUH:
B03-1  Optical Sensors for Responsive Implants
B03-2  Development of microfluidic optical sensor system
B08-2  Implant coating facilitating an intentional implant removal

TUBS:
B01-2  Enzymatically controlled drug release systems
B08-1  Thermoreversible crosslinking of biocompatible and biostable polymers

HZI:
B01-3  Development and evaluation of sensor/actor cells to visualize and counteract infections at implant surfaces

Social Sciences

HMTMH:
Z01-1  Health Communication Research - Field of communication science with a focus in health research
Z01-2  Health Communication Research - Public health with a focus on health communication
Engineering Sciences

**MHH:**

A01-1  Wear detection in total knee arthroplasty: development of in-vivo methods and retrieval analysis

A03-1  Basic research on acoustic emission in prosthetic interfaces

A04-2  Investigation of damage-tolerant implant junctions under long-term and worst-case loading scenarios

A05-1  Investigation of electrotoxicity of cochlea implant stimulation in cell culture

A06-2  Impedance spectroscopy with cochlea implant electrodes

A07-2  Design of a Hi-fi Computational Model of Electric Stimulation of the Auditory Nerv with a Cochlear Implant

A08-1  Experimental development of heating strategies for implant removal

**LUH:**

A01-2  Digital Implant Lifecycle Management and Automated Manufacturing

A03-2  Use of acoustic emission analysis for the diagnosis of loosened hip arthroplasties

A03-3  Development of combined electro spray ionization pyrolysis-gas chromatograph ion mobility spectrometer for fast on-site analysis of body fluids

A04-1  Demand-oriented design and manufacture of damage-tolerant implant junctions

A05-2  Basic investigations on the corrosion behavior of platinum with regard to different material states and development of sensory gold electrodes for cochlear implants

A06-1  Development of an impedance spectrometric method for detecting the cochlear implant position and possible cell occupation on stimulation electrodes

A07-1  Surrogate modeling for the monitoring of implants

A08-2  Numerical modeling of the inductive implant heating for a tissue-conserving implant removal

B04-1  Material and process development for fine-grained biocompatible niobium alloys

B07-1  Simulations of biofilm development and degradation