

Science and Engineering Research Program 2020 Project Proposal

Hochschulbüro für
Internationales /
International Office

Uta Knoche/ Kristina Schmidt

Tel +49 511 762 2549
Fax
Uta.knoche@zuv.
uni-hannover.de

Kristina.Schmidt@zuv.uni-
hannover.de

institute: Institute for Multiphase Processes

project title: Biocompatibility and degradation of tissue-engineered constructs

project description:

Tissue engineering (TE) is the most promising approach to develop tissue-engineered constructs comprising cells and scaffolds to replace or regenerate damaged tissue in patients. The human amniotic membrane (hAM) has been employed as a scaffolding material in TE for different applications in corneal treatment, wound dressing, urology, and other areas. However, the good results of hAM for its biological properties (such as antibacterial, angiogenetic, antifibrotic, and anti-inflammatory properties). The mechanical properties and the biological properties of hAM vary between donors, the zone of the placenta, and the method of delivery. To face those challenges, we aimed to include hAM in polymeric scaffolds obtained by the electrospinning process, and the biocompatibility and degradation of the electrospun mats should be assessed..

required skills: laboratory work, statistical analysis.

contact/ supervisor: lealmarin@imp.uni-hannover.de, M.Eng Sara Leal Marin/ Prof. Prof. hc Dr.-Ing. Birgit Glasmacher, M.Sc.

Please return to Kristina Schmidt or Uta Knoche till 15th of November.