Herbstmeeting TRR127
Talks 13. November 2018

Prof. Robert Rieben and the Cardiovascular Research Group are pleased to announce that **Dr. med. vet. Karolina Theodoridis** and **Dr. rer. nat. Robert Ramm**, Hannover Medical School, Germany will hold a seminar about **Heart Valve Implants.**

"Decellularized Heart Valve Implants: Relevance of Age for the Regenerative Potential" - Dr. med. vet. Karolina Theodoridis

13. November 2018
14:00 Uhr, Mu40 U133

Summary:
Heart valve replacement based on decellularized grafts has great clinical potential and poses the promise of adaptive growth due to its repopulation with autologous cells. For allogenic replacement, the sheep has been commonly used as an in vivo model and has been the source of most preclinical findings. To access the impact of the recipients´ age we used explants from different studies and of different aged sheep groups and compared the degree of cell-repopulation. In young recipients, a stronger repopulation with cells is indicated, but a significance is not detected due to low n-values. While it becomes clear that large animal studies are indispensable for functional long-term studies, a simpler implantation model for investigating infwilluencing factors on the regenerative potential would be desirable.

Speaker:
Dr. med vet. Karolina Theodoridis is a scientific coworker in the preclinical research of Tissue Engineering at the Hannover Medical School in Germany. As a veterinarian, she has focused on histological analyses and supervision of large animal studies.

"Decellularized Heart Valve Implants: Foreign becomes Self by Remodeling of Extracellular Matrix" - Dr. rer. nat. Robert Ramm

13. November 2018
14:00 Uhr, Mu40 U133

Summary:
Decellularized heart valves substitutes are a new class of implants especially designed to treat children and young adult patients. Those patients need implants that combine perfect haemodynamic properties with longevity and the potential to adapt to growth. To achieve longevity and growth potential the extracellular matrix of decellularized heart valves implants has to be constantly maintained and remodeled in vivo. In this report, the process of remodeling has been studied in relevant large animal models applying an orthotopic replacement of the pulmonary heart valve using decellularized xenogeneic implants.

Speaker:
Dr. Robert Ramm is a trained biologist involved into translational research on decellularized xenogeneic heart valves at the Hannover Medical School in Germany.

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