

Seminar

Translational and Clinical Wyss Zurich Projects

Tuesday, April 24, 2018 at 12:30 – 13:30

Kleiner Hörsaal OST,
University Hospital Zurich

Dr. Simone Bottan, Dr. Aldo Ferrari

Wyss Zurich – ETH Zurich / University of Zurich

Addressing the problem of fibrotic tissue encapsulation in surgical practice – Status quo within the Wyss Zurich HYLOMORPH project

It is estimated that more than 10 million medical implants are implanted in patients each year worldwide, notably for cardiovascular and plastic surgery. Due to sub-optimal biocompatibility of existing medical implants, every time one is placed in a patient by a surgeon, fibrosis occurs in the surrounding tissue. Fibrosis is among the primary causes for malfunction and failure of implantable medical devices.

To address this critical medical need, the HYLOMORPH team has developed a unique surgical membrane that optimizes the interface between implants and human tissue. In pre-clinical studies conducted by the team, micro-structured biosynthesized cellulose membranes led to an 80% reduction in fibrotic tissue formation at three months after surgery.

Based on these promising results, the team is now working in close collaboration with the German Heart Institute Berlin (Deutsches Herzzentrum Berlin, DHZB) to prepare for the first-in-man application of cellulose membranes on Cardiac Implantable Electronic Devices.



Organizer: Prof. Dr. Simon P. Hoerstrup, PhD

Execution/Chair: Dr. Flora Vajda

www.wysszurich.uzh.ch, info@wysszurich.ch, +41 44 633 89 79

