

On November 8th, 2018, the 9th CABMM Symposium was held at the University of Zurich. After a comprehensive session about aneurysm research within the CABMM network, projects funded by a CABMM Start-up Grant were presented. The audience consisted of a well-balanced mixture of clinicians from human and veterinary medicine as well as basic researchers. At the end of the event, the official farewell of Brigitte von Rechenberg as chairwomen of the CABMM took place.



Simon Hoerstrup



Serge Marbacher



Sandrine Morel

The chair of the CABMM Steering Committee, Prof. Simon Hoerstrup, opened the meeting and welcomed the participants.

At the beginning of the session about aneurysm research, PD Dr. Serge Marbacher reviewed several animal models used for investigating aneurysms, which are classified based on how they are created, their place of origin, and the degenerative state of the aneurysm wall. Subsequently, Dr. Sandrine Morel presented the use of the Helsinki rat model in a study focusing on hormonal effects in aneurysm formation. Histologic investigations addressed aneurysm growth, wall inflammation, thrombus composition, and other parameters.

After a short coffee break, Prof. Daniel Rüfenacht gave the keynote lecture about the importance of the aneurysm wall in assessing its stability. Several aspects like growth, shape, inflammation state and flow conditions need to be considered before to decide if the treatment of a patient is necessary. The next presentation by Prof. Michael Hottiger focused on the molecular regulation of inflammatory processes. He described that plaque formation in vessels is linked to the inhibition of specific sugar residues on proteins and that their levels can be used to detect inflammations. Subsequently, Frederico Teixeira talked about computational tools to model cerebral aneurysms. In a multi-physics approach, formation, enlargement, stabilization and / or aneurysm growth as well as hemodynamic parameters are considered to estimate aneurysm stability. Finally, Prof. Sven Hirsch talked about the great importance of data acquisition and their subsequent provision for research and development. So far, data of more than 6000 patients was collected in a database including X-ray angiographies, hemograms, histological examinations, and clinical outcome.



Daniel Rüfenacht



Michael Hottiger



Frederico Teixeira



Sven Hirsch



Mihyun Lee



Benjamin Gantenbein



Simone Forterre

The first speaker of the session about CABMM Start-up Grants was Dr. Mihyun Lee who talked about the development of a nanoparticle-based tissue glue that provides instant adhesion between cartilage and engineered tissue. Moreover, the addition of these nanoparticles to bioinks enhanced the mechanical strength, printability and printing fidelity of cartilage tissue. Afterwards, Prof. Benjamin Gantenbein talked about the role of plasmin in the healing of anterior cruciate ligament ruptures. However, the experiments did not confirm the hypothesis that plasmin might have a negative effect on healing or scar formation. The last presentation given by Dr. Simone Forterre dealt with the role of the infrapatellar fat pad in dogs with diseased cranial cruciate ligaments. After cruciate ligament ruptures, higher amounts of inflammatory mediators and cells were detected.

At the end, the official farewell of Brigitte von Rechenberg as chairwomen of the CABMM Steering Committee was solemnized. As a surprise, the representatives of the Mäxi Foundation joined her goodbye. Simon Hoerstrup gave a very personal farewell speech, talking not only about their collaborations during the last 20 years, but also highlighting Brigitte's personality, commitment, and enthusiasm.



We would like to thank all persons involved in the 9th CABMM Symposium!