

## News from the Steering Committee



Dear CABMM members

The Steering Committee is happy and also a little bit proud, to send you the first CABMM newsletter in autumn 2013. It shows our further establishment as a translational research platform and Competence Center at the University of Zurich proceeding with a steadily increasing number of new members. At this point we have 51 acknowledged and active members from basic researchers to clinicians coming from various

fields, and with them come Masters, Doctorate and PhD students, making for an impressive network!

### Complete Quality Chain

A very big step in the CABMM was taken concerning regulatory affairs. As you all know, biotechnology products are seriously scrutinized by the regulatory bodies of all countries, such as the Swissmedic, FDA, TUV, etc. pending on where the market should be established. Official regulations include *Good Manufacturing Practice* (GMP) for the production of drugs and active compounds including tissue engineered composites, *Good Laboratory Practice* (GLP) for all preclinical safety studies, for example animal experiments testing medical devices or composites requiring FDA certification, and finally *Good Clinical Practice* (GCP) for clinical trials in humans. While the University Hospital Zurich (USZ) has established successfully a GCP organization for several years, GMP and GLP have now been newly established through members of the CABMM. Prof. Hostrup's group received GMP accreditation for the new and first Swiss Center for Regenerative Medicine in 2012, and the Musculoskeletal Research Unit (MSRU) under my own leadership has officially submitted the documents for GLP accreditation in June 2013. This means that the UZH will be the only University in Europe, which fulfills all regulatory requirements of GMP, GLP and GCP under one roof. This should prove attractive for research and development in academic institutions and industry alike. It already demonstrated its values in EU grants for preclinical studies in my group. We hope that this will also be an asset to all our CABMM members for receiving grant funding.

### Pan European Networks

As the FP7 call of the European commission is now closing for good and the new call "Horizon 2020" will replace it next year, the Steering Committee decided that it would be important to make our CABMM visible to the European science community. Therefore, public relations for our network in conjunction with the Pan European Networks in Brussels was launched for the year 2020. Apart from displaying our logo on their website (<http://www.paneuropeannetworks.com/index.html>), our network will also be advertised throughout Europe on partner lists for

research projects. Articles about the uniqueness of the network have been and will be published regularly, and any members who would like to present their research direction should contact us directly, since this would be the best PR for our network. As this activity costs money, we are grateful to the Mäxi Foundation, who generously supported us for this activity. We hope that this will benefit our many members and afford them with the opportunity of being addressed and asked for participation in European consortiums and hopefully may lead to successful grant funding applications.

### CABMM Report

One of our main duties in autumn will be to prepare the next biannual CABMM Report 2012/2013, where we also need your full support and swift responses to our administration. This report is a beautiful window to show our network to the public, other scientists and industrial partners – but it can only be so good as its members who support us. So we are looking forward to your publication lists as well as the information about your research projects and your collaborations with other CABMM partners. Thank you for your support!

Zürich, August 2013

Prof. Dr. med. vet. Brigitte von Rechenberg, Dipl. ECVS

## Announcements

Upcoming event:

The **4<sup>th</sup> CABMM Symposium** will take place on **December 5<sup>th</sup>, 2013**. Don't miss this exciting event and save the date in your calendar! Further information and registration at <http://www.cabmm.uzh.ch/Events-2.html>

CABMM start-up grants:

Starting from the next application round with submission deadline on March 1, 2014, not only projects in the musculoskeletal field, but also in the **cardiovascular field** can be funded. For further information visit our homepage at <http://www.cabmm.uzh.ch/StartUpGrant-1.html>

Administrative support:

**Nicole Kramer**, one of the secretary assistants of the Equine Department, will support the CABMM coordinating office during the maternity leave of Marina Klawitter. Welcome in the team, Nicole!

Inaugural lecture:

**PD Dr. Raffaella Santoro**, one of the CABMM-scientists supported by the Mäxi Foundation, will give her inaugural lecture entitled "Epigenetics And Chromatin: Beyond The Cookbook Of Life" at 18:15 on October 21, 2013 in the aula of the University Center (Rämistrasse 71).

Call for information:

Please inform us about your CABMM-affiliated publications, awards, career development and any other **information related to the CABMM**, so we can continuously keep our records up-to-date. Thank you!



## New members

**PD Dr. Laurent Audigé**, Upper Extremities, Schulthess Clinic, Zurich.

Dr. Audigé focuses on the treatment of trauma and disorders of the musculoskeletal system. His research is mainly related to the evaluation of implants and surgical interventions, including the documentation and reporting of surgical complications.

**Dr. Sven Hirsch**, Biomedical Simulation Group, Zürcher Hochschule für Angewandte Wissenschaften (ZHAW), Wädenswil. Dr. Hirsch applies computational techniques to model selected aspects in complex physiological systems, which are subsequently validated using image data of real biological experiments. A strong focus is on vessel wall pathologies and their lifecycle, e.g. cerebral aneurysms.

**Prof. Dr. Niels Kuster**, IT'IS Foundation for Research on Information Technologies in Society, Zurich.

The IT'IS foundation is a leading center for *in silico* evaluations in complex anatomies, including electromagnetic-tissue interactions, tissue heating/cooling, acoustics in biology, bio-fluid dynamics, biomechanics, and specific tissue models. It also has key competences in experimental radio frequency near-field assessments of transmitters implanted in the human body or operating in its close proximity.

**Dr. Serge Marbacher**, Cerebrovascular Research Group, Department of Neurosurgery, Kantonsspital Aarau.

The cerebrovascular research group focuses on cerebral aneurysms, e.g. endovascular treatment options to prevent aneurysm rupture and sequels of subarachnoid hemorrhage after their rupture.

**PD Dr. Frank Steffen**, Department for Small Animals, Neurology, University of Zurich.

Dr. Steffen is interested in the diagnosis and treatment of disorders of the canine spine or spinal cord. His group developed new surgical techniques in the spine to decompress nervous tissues and to fuse canine intervertebral disc spaces. Current projects center of the regeneration of degenerated intervertebral discs using stem cell technologies.

## Congratulations

Habilitation:

**PD Dr. Peter J. Richards**, Scientific Director of the CABMM, successfully passed his habilitation lecture.

Dissertation:

**Dr. Lilian Quero**, former member of the Spine Research Group, completed her PhD thesis about discogenic back pain.

Award:

**Dr. André Nicki Tiaden**, member of the Bone and Stem Cell Research Group, received the SBMS President Award 2013 from the Swiss Bone and Mineral Society (SBMS) for his work on the human serine protease HTRA1.

## Press / Publications

"A hub for collaboration"  
about B. von Rechenberg and the CABMM,  
*INTERNATIONAL INNOVATION*, February 2013.



"Research in permanence"  
about the research of B. von Rechenberg and S. Stübinger,  
*Pan European Networks: Science & Technology*, Issue 07, June 2013.

"Preparation and osteogenic differentiation of scaffold-free mouse adipose-derived stromal cell microtissue spheroids (ASC-MT)"  
Mirsaidi A, Tiaden AN, Richards PJ. *Curr Protoc Stem Cell Biol*. 2013  
(*Epub ahead of print*).

"Vorbereitungen und Durchführung des Transportes für Pferde mit starker Kolik" Fürst A, Wehrli Eser M, Jackson M, Keller R, Theiss F.  
*Pferdeheilkunde* 29(5):591-598, 2013.

"Osteoanabolic effect of alendronate and zoledronate on bone marrow stromal cells (BMSCs) isolated from aged female osteoporotic patients and its implications for their mode of action in the treatment of age-related bone loss"  
Lindtner RA, Tiaden AN, Genelin K, Ebner HL, Manzl C, Klawitter M, Sitte I, Rechenberg BV, Blauth M, Richards PJ. *Osteoporosis Int*. 2013  
(*Epub ahead of print*).

"Hyaluronic acid fragments enhance the inflammatory and catabolic response in human intervertebral disc cells through modulation of TLR2 signaling pathways"  
Quero L, Klawitter M, Schmaus A, Rothley M, Sleeman J, Tiaden AN, Klases J, Boos N, Hottiger MO, Wuertz K, Richards PJ. *Arthritis Res Ther* 15(4):R94, 2013  
(*Epub ahead of print*).

"Assessment of the Matrix Degenerative Effects of MMP-3, ADAMTS-4 and HTRA1 injected into a bovine Intervertebral Disc Organ Culture Model"  
Furtwängler T, Chan SC, Bahrenberg G, Richards PJ, Gantenbein-Ritter B. *Spine (Phila Pa 1976)*, 2013  
(*Epub ahead of print*).

"Inflammatory Mediators in Intervertebral Disk Degeneration and Discogenic Pain"  
Wuertz K, Haglund L. *Global Spine J* 3:175-184, 2013.

"The Rabbit as Experimental Model for Research in Implant Dentistry and Related Tissue Regeneration"  
Stübinger S, Dard M. *J Invest Surg* 2013  
(*Epub ahead of print*).

"Histological and biomechanical analysis of porous additive manufactured implants made by direct metal laser sintering: A pilot study in sheep"  
Stübinger S, Mosch I, Robotti P, Sidler M, Klein K, Ferguson SJ, Rechenberg BV. *J Biomed Mater Res B Appl Biomater* 2013  
(*Epub ahead of print*).

"Effects of Er:YAG laser on bacteria associated with titanium surfaces and cellular response in vitro"  
Hauser-Gerspach I, Mauth C, Waltimo T, Meyer J, Stübinger S. *Lasers Med Sci* 2013  
(*Epub ahead of print*).

"The emerging roles of HTRA1 in musculoskeletal disease"  
Tiaden AN and Richards PJ, *Am J Pathol* 182(5):1482-8, 2013.

"Altitude, pasture type, and sheep breed affect bone metabolism and serum 25-hydroxyvitamin D in grazing lambs"  
Willems H, Leiber F, Kohler M, Kreuzer M, Liesegang A. *J Appl Physiol* 114(10): 1441-1450, 2013.