University of Zurich[UZH]

cabmm
center for applied biotechnology and molecular medicine

Newsletter

Goodbye Mäxi

Dear CABMM members and friends,

Named after the cat of the legacy donor, the Mäxi Foundation was established ten years ago with the purpose of financially supporting people suffering from physical or financial difficulties and improving their situation, e.g., by promoting medical research. All in line with this purpose, about two dozen projects were supported all over Switzerland - including the CABMM!

The foundation's substantial support came at the right time; shortly after the establishment of the CABMM. It provided a strong basis for further development of the young CABMM and subsequently, gave continuity after its consolidation period. Thus, the Mäxi Foundation significantly contributed to the success of the CABMM.

Use of funds and achievements

The funds were used in a sustainable manner for several purposes, which provided the entire CABMM network significant advantages. In addition to various smaller projects, the support funded scientific positions in the groups of the three founding CABMM members with the aim of strengthening research within the CABMM and supporting young academics. Further focus was placed on two main projects: regulatory affairs and establishment of a funding program that has benefited all CABMM members.

The support of the Mäxi Foundation took us a great step forward in acquiring the **regulatory requirements** for the production and development of new drugs and therapies at the Zurich location. With the help of the Mäxi Foundation, two founding members of the CABMM, Prof. Dr. Dr. Simon P. Hoerstrup and Prof. Dr. Brigitte von Rechenberg, established Good Manufacturing Practice (GMP) and Good Laboratory Practice (GLP) at the Institute of Regenerative Medicine and the Musculoskeletal Research Unit, respectively. Together with Good Clinical Practice (GCP) being established at the University Hospital, the University of Zurich is now in the advantageous position of being able to provide the complete quality chain of GMP, GLP and GCP.

Furthermore, the support of the Mäxi Foundation enabled us to set up our own funding program, the **CABMM Start-up Grant**. This program supports innovative, collaborative projects within the CABMM network, with emphasis being placed on preliminary high-risk projects that provide proof of principle and that are usually difficult to get funded. This concept has paid off: more than half of the supported projects resulted in publications in peer-reviewed scientific journals despite of their risky nature and the results of approx. 70% of all funded projects generated the preliminary data required to subsequently apply for funding from more competitive funding agencies.

Closing Symposium Mäxi Foundation

Unfortunately, all good things come to an end and soon, the Mäxi Foundation will be dissolved. Before its dissolution, a closing symposium with short presentations of selected projects including the CABMM is held on March 12th, 2019, at the Schulthess Klinik Zurich, allowing for last discussions and for saying goodbye.

All interested CABMM members are kindly invited to join the symposium and, thus, I would like to take this opportunity to provide you with the detailed program. All participants will also receive the "Mäxi book" with stories about all supported projects and collaborations. This book will not only illuminate the projects from a scientific point of view, but also provide a more personal perspective of the Mäxi Foundation; thus, making it an interesting read and a nice souvenir of our time spent together.

For me, it only remains to say again thank you to all representatives of the Mäxi Foundation – not only for the substantial financial support, but also for the discussions, meetings, and their friendship and company during the last years. We are happy about everything we have achieved together and will continue with an optimistic view of the future. And of course, we will keep in touch!

Thank you - and goodbye Mäxi!

With my best regards,

Silke Kachofner-Mark, PhD
Managing Director of the CABMM

Program

Mäxi Foundation Closing Symposium

Tuesday, March 12th, 2019

Schulthess Klinik Zurich
Lengghalde 2
8008 Zurich

15:00	Führung durch das neue *Human Performance Lab* an der Schultess Klinik	
15:30	Begrüssungskaffee	
16:00	Eröffnung & Moderation	M.Kündig
	CABMM Universität Zürich	Prof. B. von Rechenberg
	Institute for Biomechanics ETH Zurich	Prof. S. Ferguson
	Rheumatologie & Rehabilitation Schulthess Klinik Zürich	Dr. I. Kramers-de Quervain
	Insitute for Arthritis Resarch Universitäten Zürich, Genf, Lausanne	Prof. S. Gay
	Institut für Evolutionäre Medizin Universität Zürich	Prof. F. Rühli
17:15	Kaffeepause	
17:45	**Rehabilitationszentrum** Kinderspital Affoltern am Albis	Prof. A. Meyer-Heim
	Entwicklungspädiatrie Kinderspital Zürich	Prof. B. Latal
	Cryo-electron tomography Universität Zürich	Prof. O. Medalia
	Institut für Regenerative Medizin Universität	Prof. R. Nitsch
	Zurich Heart Hochschulmedizin Universität Zürich	Prof. V. Falk
19:00	Schlusswort des Präsidenten des Mäxi-Stiftungsrates	A. Donatsch
19:15	Apéro riche	

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Announcements

Upcoming events!

Don`t miss the opportunity to discuss scientific questions and find new collaborations in the stimulating environment of the CABMM and reserve the following dates in your calendar:

- Thursday, May 23, 2019
  12th CABMM Plenary Meeting / 9th CABMM Spring Seminar
- Thursday, November 14, 2019
  10th CABMM Symposium

New members

Prof. Simon Pot

Division of Ophthalmology, Equine Department, Vetsuisse Faculty, University of Zurich

Simon Pot`s main research interests are on the following topics: (1) Understanding the force balance between extracellular matrix and fibroblasts: the mechanobiology of corneal wound healing and fibrosis, (2) Treatment of infectious corneal disease: medical (antibiotic and antimycotic) and physical (UV-A/Riboflavin corneal crosslinking - CXL) elimination of corneal infections and stabilization of the corneal stroma, (3) High resolution ocular imaging: ultrasound biomicroscopy, microcoil assisted MRT and Optical Coherence Tomography.

Dr. Henning Richter

Diagnostic Imaging Research Unit, Vetsuisse Faculty, University of Zurich

Dr. Richter is leading the Diagnostic Imaging Research Unit (DIRU), which serves as a platform for internal and external research groups interested in veterinary and translational clinical studies. DIRU offers a broad range of imaging modalities, highest expertise in imaging, as well as in study organization and laboratory animal science. Scientific interest mainly focuses on interventional and cardiovascular imaging.

Public relations

"A customised endoprothesis for the stifle joints of rabbits for preclinical studies"
Brigitte von Rechenberg, Stephen Ferguson, Maurizio Calcagni, Karina Klein, Isabel Heckel
PanEuropeanNetworks: SciTech Europa Quarterly, Issue 28;146-147

CABMM booklet: Concept, Network, Research Platform, Start-up Grant, Key People
PanEuropeanNetworks: SciTech Europa Quarterly, Issue 28;287-310

Publications

Increased motility of mesenchymal stem cells is correlated with inhibition of stimulated peripheral blood mononuclear cells *in vitro*. Bertolo A, Pavlicek D, Gemperli A, Baur M, Pötzel T, Stoyanov J. *J Stem Cells Regen Med, 2017 Dec 18;13(2):62-74.*

Differential Gene Transcription of Extracellular Matrix Components in Response to *In Vivo* Corneal Crosslinking (CXL) in Rabbit Corneas. Kling S, Hammer A, Netto EAT, Hafezi F. *Transl Vis Sci Technol, 2017 Dec 12;6(6):8.*

Inflammatory Processes Associated with Canine Intervertebral Disc Herniation. Monchaux M, Forterre S, Spreng D, Karol A, Forterre F, Wuertz-Kozak K. *Front Immunol, 2017 Dec 4;8:1681.*

Pregnancy-induced changes in corneal biomechanics and topography are thyroid hormone related. Tabibian D, de Tejada BM, Gatzioufas Z, Kling S, Meiss VS, Boldi MO, Othenin-Girard V, Chilin A, Lambiel J, Hoogewoud F, Hafezi F. *Am J Ophthalmol, 2017 Dec;184:129-136.*

Biologic response of human anterior cruciate ligamentocytes on collagen-patches to platelet-rich plasma formulation with and without leucocytes. Krismer AM, Cabra RS, May RD, Frauchiger DA, Kohl S, Ahmad SS, Gantenbein B. *J Orthop Res, 2017 Dec;35(12):2733-2739.*

Reprogramming Primary Amniotic Fluid and Membrane Cells to Pluripotency in Xeno-free Conditions. Slamecka J, Laurini J, Shirley, T, Hoerstrup SP, Weber B, Owen L, McClellan S. *J Vis Exp, 2017 Nov 27;(129).*

RhoA activation and nuclearization marks loss of chondrocyte phenotype in crosstalk with Wnt pathway. Öztürk E, Despot-Slade E, Pichler M, Zenobi-Wong. *Exp Cell Res, 2017 Nov 15;360(2):113-124.*

Chromatin and nucleosome dynamics in DNA damage and repair. Hauer MH, Gasser SM. *Genes Dev, 2017 Nov 15;31(22):2204-2221.*

Human chondroprogenitors in alginate-collagen hybrid scaffolds produce stable cartilage *in vivo*. Studer D, Cavalli E, Formica FA, Kuhn GA, Salzmann G, Mumme M, Steinwachs MR, Laurent-Applegate LA, Maniura-Weber K, Zenobi-Wong M. *J Tissue Eng Regen Med, 2017 Nov;11(11):3014-3026.*

Comparative analysis of poly-glycolic acid-based hybrid polymer starter matrices for *in vitro* tissue engineering. Generali M, Kehl D, Capulli AK, Parker KK, Hoerstrup SP, Weber B. *Colloids Surf B Biointerfaces, 2017 Oct 1;158:203-212.*

Amniotic fluid cells show higher pluripotency-related gene expression than allantoic fluid cells. Kehl D, Generali M, Görtz S, Geering D, Slamecka J, Hoerstrup SP, Bleul U, Weber B. *Stem Cells Dev, 2017 Oct 1;26(19):1424-1437.*

Vitamin D status in growing dairy goats and sheep: Influence of ultraviolet B radiation on bone metabolism and calcium homeostasis. Nemeth MV, Wilkens MR, Liesegang A. *J Dairy Sci, 2017 Oct;100(10):8072-8086.*

Effect of recombinant human bone morphogenetic protein 2 (rhBMP-2) on equine bone formation: A preliminary *in vitro* and *in vivo* evaluation. Jackson MA, Fürst AE, Koch S, von Rechenberg B, Richards PJ. *Pferdeheilkunde, 2017 Sep/Oct; 33(5):424-432.*

Intrastromale Refraktive Chirurgie mit dem Femtosekundenlaser. Sekundo W, Blum M, Hafezi F, Kling S, Lazaridis A, Messerschmidt-Roth A, Spiru B. *In: Thomas Kohnen, Berthold Seitz (eds), Spitzenforschung in der Ophthalmologie, Deutsche Augenheilkunde international, Edition 2nd, ALPHA Informations-GmbH/Lampertheim, 2017 Sep:150-152.*

Hypoxia regulates RhoA and Wnt/β-catenin signaling in a context-dependent way to control re-differentiation of chondrocytes. Öztürk E, Hobiger S, Despot-Slade E, Pichler M, Zenobi-Wong M. *Sci Rep, 2017 Aug 22;7(1):9032.*

Diagnosing peri-implant disease using the tongue as a 24/7 detector. Ritzer J, Lühmann T, Rode C, Pein-Hackelbusch M, Immohr I, Schedler U, Thiele T, Stübinger S, Rechenberg BV, Waser-Althaus J, Schlottig F, Merli M, Dawe H, Karpíšek M, Wyrwa R, Schnabelrauch M, Meinel L. *Nat Commun, 2017 Aug 15;8(1):264.*

Effects of riboflavin, calcium-phosphate layer and adhesive system on stress-strain behavior of demineralized dentin. Bortolotto T, Ryabova A, Nerushay I, Kling S, Hafezi F, Garcia-Godoy F, Krejci I. *Am J Dent, 2017 Aug;30(4):179-184.*

Role of HTRA1 in bone formation and regeneration: *In vitro* and *in vivo* evaluation. Filliat G, Mirsaidi A, Tiaden AN, Kuhn GA, Weber FE, Oka C, Richards PJ. *PLoS One, 2017 Jul 21;12(7):e0181600.*

Tailored Ahp-cyclodepsipeptides as potent non-covalent serine protease inhibitors. Köcher S, Rey J, Bongard J, Tiaden AN, Meltzer M, Richards P, Ehrmann M, Kaiser M. *Angew Chem Int Ed Engl, 2017 Jul 10;56(29):8555-8558.*

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