

Report on Activities 01.01.2015 – 31.12.2015

2015 was marked by the completion of the Balgrist Campus and its inauguration in December of the same year. The Foundation Board was newly constituted at the end of the year.

1. Activities of the Foundation

In 2015 the ResOrtho Foundation had to report two deaths:

Mr Henry C.M. Bodmer died on 2 June 2015. He played a major role in the establishment of the ResOrtho Foundation and also the Professorship for Muscle Biology, which it financed, as well as the Balgrist Campus. The ResOrtho Foundation has him to thank for its success, not only for his financial involvement but also for his emotional commitment.

Mr Joerg Rappold – co-creator of the deed of foundation and one of the initial foundation members – died on 3 February 2015. With his expertise, his personal and specialist skills and advice, he always supported the ResOrtho Foundation and contributed towards the realisation of its objectives. We will be eternally grateful to him.



Unfortunately, Mr **Hans Hofmann**, a member of the board since its foundation in 2000, decided to step down at the end of 2015. We are grateful to Hans Hofmann for his generosity, his goodwill and commitment towards the *res publica*. His intuition and his dexterity often helped to achieve what was considered impossible.

I. Musculoskeletal Research and Development Centre *Balgrist Campus*

2015 marked the completion and opening of the Balgrist Campus. Managing Director Thomas Huggler took up his position in January 2015 and with a great deal of effort succeeded in making the commissioning and opening ceremony a resounding success.

The ResOrtho Foundation would like to thank all those involved for their outstanding commitment: client representative Samuel Gerber, who was responsible for ensuring that the building was completed on time and on budget; architect Daniel Wentzlaff and his team who did an excellent job in translating the project ideas into something

special; the responsible site managers, Sebastian Eichmann and Paul Luternauer. A special thanks also goes to the user representative, Jess Snedeker who, with extraordinary commitment throughout the planning, construction and commissioning phases, ensured that the building was not only user-friendly but also motivated other research groups to move into the campus. He was the first to occupy the Balgrist Campus with his research group as a pilot group at the beginning of November.

The building is testimony to the quality of the efforts provided by the building committee (Eric Honegger, Hans Hofmann, Serge Altmann, Robert Zingg and Hans Rutschmann).

We acknowledge that the Balgrist Campus could not have been brought to fruition without the help of the persons and institutions mentioned on the list of sponsors: Hansjörg Wyss Foundation; Henry C.M. Bodmer; Novartis Foundation; Oak Foundation; Schindler Holding AG, Thomke Invest AG; Anklin AG, Karl Storz Endoskope; Medacta International SA; Stiftung Propter Homines Vaduz (FL); Stiftung Werner H. Spross; Stiftung Werner M. Wolf AG; Canton Zurich Lottery Fund, plus many other individual contributions from persons and institutions named on our website.



II. Individual academic sponsorship for young researchers

Due to the major investments in conjunction with the Balgrist Campus no individual grants were awarded in 2015. An overview of donations received and how they were used can be seen under paragraph 2. "financial situation".

III. Report from the Chair for Muscle Biology (Foundation Professorship)

Staff:	Prof. Martin Flück (Head) Dr. sc.nat. Marco Toigo, senior assistant Msc Céline Ferrié, scientific employee/lab assistant Dr. Paola Valdivieso, Post doctoral student
Supervised PhD students:	Msc Severin Ruoss (Zürich) Msc Sander van Ginkel (Manchester/Amsterdam)
Supervised Master students:	Rebekka Bosshard (Zürich) Claudio Viecelli (Zürich) Alexandra Grob (Zürich) Sara Abdel-Aziz (Zürich)
Supervised Trainees:	Andreas Bapst (Zürich) Damian Kellenberger (Zürich) Giulia Casal (Fribourg)
Research topic:	Changes to the skeletal muscle following operations on the musculoskeletal system

Publications 2015:

1. Aguayo D, Mueller SM, Boutellier U, Auer M, Jung HH, Flück M, Toigo M. One bout of vibration exercise with vascular occlusion activates satellite cells. *Exp Physiol* 101(2): 295-307
2. Roskopf AB, Ehrmann C, Buck FM, Gerber C, Flück M, Pfirrmann CW. Quantitative Shear-Wave US Elastography of the Supraspinatus Muscle: Reliability of the Method and Relation to Tendon Integrity and Muscle Quality. *Radiology* 278(2): 465-74
3. van Ginkel S, Ruoss S, Valdivieso P, Degens H, Waldron S, de Haan A, Flück M. ACE inhibition modifies exercise-induced pro-angiogenic and mitochondrial gene transcript expression. *Scand J Med Sci Sports*. 2015 Sep 26
4. Mathes S, van Ginkel SL, Vaughan D, Valdivieso P, Flück M. Gene-pharmacological effects on exercise-induced muscle gene expression in healthy men. *Anat Physiol* S5:005
5. Gerber C, Meyer DC, Flück M, von Rechenberg B, Benn M, Wieser K. Anabolic steroids reduce muscle degeneration associated with rotator cuff tendon release in sheep. *Am J Sports Med* 43(10): 2393-400
6. Galimov A, Hartung A, Trepp R, Mader A, Flück M, Linke A, Blüher M, Christ E, Krützfeldt J. Growth hormone replacement therapy regulates microRNA-29a and targets involved in insulin resistance. *J Mol Med (Berl)* 93(12): 1369-79
7. Flück M, von Allmen RS, Ferrié C, Tevaearai H, Dick F. Protective Effect of Focal Adhesion Kinase against Skeletal Muscle Reperfusion Injury after Acute Limb Ischemia. *Eur J Vasc Endovasc Surg* 49: 306-313
8. van Ginkel S, de Haan A, Woerdeman J, Vanhees L, Serné E, de Koning J, Flück M. Exercise intensity modulates capillary perfusion in correspondence with ACE I/D modulated serum angiotensin II levels. *Applied & Translational Genomics* 4: 33-37

2. Overview of the financial situation

In 2015, the ResOrtho Foundation received donations of roughly CHF 9.4 million, of which CHF 9 million came from the canton of Zurich Lottery Fund. Of the CHF 9.4 million, CHF 9.1 million were earmarked for the Balgrist Campus, which was directly forwarded to Balgrist Campus AG.

In accordance with the contract, the ResOrtho Foundation transmitted CHF 600,000 to the University of Zurich for the Muscle Biology Professorship (Foundation Chair) of Prof. M. Flück.

Management expenses could be kept to the previous year's low level; custodian charges and banking fees and expenses could also be maintained at the previous year's level. We would like to take this opportunity to extend our thanks to Swiss Asset Partners Vermögensverwaltungs AG (Mr Naegeli) for the outstanding effort and service. Income from securities in 2015 posted a positive result.

3. Publications

In 2015, the following scientific article was published with the support of the ResOrtho Foundation:

Anabolic Steroids Reduce Muscle Degeneration Associated With Rotator Cuff Tendon Release in Sheep. Christian Gerber, Dominik C. Meyer, Martin Flück, Mario C. Benn, Brigitte von Rechenberg, Karl Wieser. Am J Sports Med 2015;43:2393

4. Acknowledgements

All board members have undertaken their activities in favour of the foundation pro bono. Numerous other individuals have also given their services free of charge and thus strengthened the foundation.

We would like to extend a special thanks to the following persons, companies and foundations who have supported us this year with large donations and thus contributed towards the objectives of the foundation:

- Hansjoerg Wyss Foundation und Fidelity Charitable Gift Fund
- Schindler Holding AG
- Henry C.M. Bodmer
- Novartis Stiftung
- OAK Foundation
- Thomke Invest AG
- Borer Chemie AG
- Lotteriefonds Kt. Zürich
- Medacta International
- Swiss Asset Partners Holding AG
- Werner H. Spross-Stiftung
- Werner M. Wolf AG
- Prof. Christian Gerber
- Irène + Max Gsell Stiftung
- Pensimo Fondsleitung AG (Mr M. Gsell)
- Prokurations-Anstalt Vaduz
- Robert Zingg



In the 2016 financial year we would like to welcome Prof. Klaus Wellershof to the Foundation Board as successor to board member H. Hofmann who has stepped down. We are extremely grateful to Prof. Wellershoff for taking on this new additional role and look forward to his involvement in our foundation.

Thank you very much for your interest and support and we hope that you will continue to want to play a part in our projects and objectives.

A blue ink handwritten signature, appearing to read 'C. Gerber', written in a cursive style.

Prof. C. Gerber
President of the Board