

Current grants, ongoing research projects with Bert Müller as PI

Funding via Swiss National Science Foundation Division II - Mathematics, Natural sciences and Engineering (205321_150164)

Multi-modal matching of two-dimensional images with three-dimensional data in the field of biomedical engineering (Information Sciences)

Duration from 01.11.2013 to 31.10.2016

Approved amount: CHF 158'900

PI: Bert Müller, Biomaterials Science Center, University of Basel

Co-PIs: Simone Hieber, Biomaterials Science Center, University of Basel, Philippe Cattin, Medical Image Analysis Center, University of Basel

Employee: Natalia Chicherova

Funding via Swiss National Science Foundation Division CoRe - Interdivisional co-ordination and co-operative research (CR23I2_147172)

Micro- and nanoanatomy of human brain tissues (other disciplines of physics)

Duration from 01.09.2013 to 31.08.2016

Approved amount: CHF 300'000

PI: Bert Müller, Biomaterials Science Center, University of Basel

Co-PIs: Magdalena Müller-Gerbl, Anatomy, University of Basel, Oliver Bunk, Swiss Light Source, Paul Scherrer Institute, Oliver Bieri, Radiology, University Hospital Basel

Employees: Georg Schulz, Anna Khimchenko

Funding via Swiss National Science Foundation Division II - Mathematics, Natural sciences and Engineering (200021_135496)

Tomography of microvascular structures in murine brain tumors (Condensed Matter Physics)

Duration from 01.01.2013 to 31.12.2015

Approved amount: CHF 165'516

PI: Bert Müller, Biomaterials Science Center, University of Basel

Co-PI: Simone Hieber, Biomaterials Science Center, University of Basel

Employee: Peter Thalmann

Funding via Swiss National Science Foundation Division II - Mathematics, Natural sciences and Engineering (200021_135496)

Nanostructures for artificial muscles (NAM) (Condensed Matter Physics)

Duration from 01.09.2011 to 31.08.2014

Approved amount: CHF 234'482

PI: Bert Müller, Biomaterials Science Center, University of Basel

Co-PI: Gabor Kovacs, Mechanical Systems Engineering, Swiss Federal Laboratories for Materials Science and Technology

Employee: Florian Weiss

Funding via Swiss National Science Foundation National Research Program 62 'Smart Materials' (406240_126090)

NO-Stress, a specific coronary vasodilator – nano-container for tailored NO release (Cardiovascular Research)

Duration from 01.02.2010 to 31.01.2015

Approved amount: CHF 543'548

PI: Bert Müller, Biomaterials Science Center, University of Basel

Co-PIs: Till Saxer, University Hospitals Geneva, Andreas Zumbühl, Chemistry Department, University of Fribourg

Employees: Margaret Holme, Marzia Buscema, Georg Schulz, (Andreas Weinberger)

Funding via nano-tera.ch (SmartSphincter)

Smart muscles for incontinence treatment

Duration from 01.04.2013 to 31.03.2016

Approved amount: CHF 2'208'000

PI: Bert Müller, Biomaterials Science Center, University of Basel

Co-PI: Lukas Brügger, University Hospital Berne, Philippe Büchler, University of Berne, Franc Hetzer, Hospitals Schaffhausen, Urs Sennhauser, Swiss Federal Laboratories for Materials Science and Technology

Employee: Tino Töpfer, (Elisa Fattorini, Bekim Osmani)

Current grants, ongoing research projects with Bert Müller as Co-PI

Funding via Swiss National Science Foundation National Center of Competence in Research (NCCR Nanosciences) (51NF40-144617)

Remineralisation of carious lesions by self assembled peptide supra-molecular networks and hydroxyapatite nanocrystals

Duration from 01.06.2012 to 31.05.2014

Approved amount: CHF 243'000

PI: Uwe Pieves, Institute for Chemistry and Bioanalytics, University of Applied Sciences and Arts Northwestern Switzerland

Co-PIs: Bert Müller, Biomaterials Science Center, University of Basel

Employees: Hans Deyhle, Iwona Dziadowiec

Funding via Swiss National Science Foundation National Research Program 62 'Smart Materials' (406240_126123)

Porous shape-memory-scaffolds as mechanically active bone implants (Materials Science)

Duration from 01.02.2010 to 30.06.2014

Approved amount: CHF 447'667

PI: Michael de Wild, Institute for Chemistry and Bioanalytics, University of Applied Sciences and Arts Northwestern Switzerland

Co-PIs: Bert Müller, Biomaterials Science Center, University of Basel, Ivan Martin, Tissue Engineering, University Hospital Basel

Employees: Therese Bormann, (Ralf Schumacher, Waldemar Hoffmann)

Completed research projects with Bert Müller as PI

Funding via Swiss National Science Foundation R'EQUIP (316030_133802)

Micro- and Nanotomography (other disciplines of physics)

Duration from 01.03.2011 to 31.07.2012

Approved amount: CHF 320'000

PI: Bert Müller, Biomaterials Science Center, University of Basel

Co-PIs: Magdalena Müller-Gerbl, Anatomy, University of Basel, Ivan Martin, Tissue Engineering, University Hospital Basel, Philippe Cattin, Medical Image Analysis Center, University of Basel, Christoph Kunz, Department of Surgery, University Hospital Basel

Funding via Swiss National Science Foundation Division CoRe - Interdivisional co-ordination and co-operative research (CR23I2_125406)

High-resolution 3D imaging of the human brain post mortem (other disciplines of physics)

Duration from 01.04.2009 to 30.06.2012

Approved amount: CHF 312'968

PI: Bert Müller, Biomaterials Science Center, University of Basel

Co-PIs: Magdalena Müller-Gerbl, Anatomy University of Basel, Klaus Scheffler Max-Planck-Institute Tübingen, Germany, Philippe Cattin, Medical Image Analysis Center, University of Basel, Franz Pfeiffer, Physics Department Technical University Munich, Germany

Employees: Georg Schulz, Martha Imholz

Funding via Swiss Nanoscience Institute (DICANS)

Disposable cantilever sensors for biomedicine

Duration from 01.11.2007 to 30.06.2012

Approved amount: CHF 500'000

PI: Bert Müller, Biomaterials Science Center, University of Basel

Co-PIs: Uwe Pieves, Institute for Chemistry and Bioanalytics, University of Applied Sciences and Arts Northwestern Switzerland, Jens Gobrecht, Paul Scherrer Institute, Felice Battiston, Concentris GmbH

Employees: Jasmin Althaus, Prabitha Urwyler, Joachim Köser

Funding via State Secretariat for Education, Research and Innovation SERI (Cotutelles de thèse, D10_2-06)

Plasma-activated polymer films for mesenchymal stem cell differentiation

Duration from 01.10.2010 to 22.05.2012

Approved amount: CHF 10'000

PI: Bert Müller, Biomaterials Science Center, University of Basel

Co-PI: Kirsten Peters, Medical Faculty, University of Rostock, Germany

Employee: Jasmin Althaus

Funding via Swiss National Science Foundation Division II - Mathematics, Natural sciences and Engineering (200021_127297)

High-resolution phase contrast micro computed tomography of soft tissues (Condensed Matter Physics)

Duration from 01.09.2009 to 31.12.2011

Approved amount: CHF 127'930

PI: Bert Müller, Biomaterials Science Center, University of Basel

Employee: Sabrina Lang

Funding via Swiss National Science Foundation National Center of Competence in Research (NCCR Co-Me) (P2_TP04/09)

Imaging the tumor vessel tree down to the capillary level (tumor vessel tree)

Duration from 01.01.2008 to 31.08.2009

Approved amount: CHF 70'700

PI: Bert Müller, Biomaterials Science Center, University of Basel

Employee: Sabrina Lang

Completed research projects with Bert Müller as Co-PI

Funding via Swiss Nanoscience Institute (NANOCURE)

Remineralisation of carious lesions by self-assembled, supra-molecular networks and hydroxyapatite nanocrystals

Duration from 01.12.2011 to 31.12.2012

Approved amount for Biomaterials Science Center: CHF 41'500

PI: Uwe Pieles, Institute for Chemistry and Bioanalytics, University of Applied Sciences and Arts Northwestern Switzerland

Co-PIs: Bert Müller, Biomaterials Science Center, University of Basel

Employees: Hans Deyhle

Funding via Commission of Technology and Innovation (CTI) – (9712.2 PFLS-LS)

Artificial muscles to control the flow in hollow organs

Duration from 01.12.2008 to 30.11.2010

Approved amount for Biomaterials Science Center: CHF 220'000

PI: Piergiorgio Tozzi, Cardiovascular Surgery, University Hospital Lausanne

Co-PIs: Bert Müller, Biomaterials Science Center, University of Basel

Employees: Shpend Muskolaj