Highlights of 2012 achievements at the Department of Medicine, Faculty of Sciences, University of Fribourg

In this synopsis we have summarized the major achievements and successes (prizes, nominations, funding, meetings and public activities) of members of the Department of Medicine. This overview does not include completed research projects and publications. For this please refer to the 2011-2012 Scientific Report of the Department.

1. Prizes and awards

   *Yang / Cardiovascular Biology*

2. **Prix de Faculté de l'Université de Lausanne** for Best Doctoral thesis in Biology and Medicine: A. Manuel (director L. Spierer) 
   *Spierer / Neurology*

3. “**Freiburger Sportpreis**” for his achievements in establishing the Bachelor Studies in Movement and Sport Science in Fribourg and his commitment to promoting sport and sport science: D. Golliard 
   *Taube / Movement and Sports Sciences*

4. **Centro Stefano Franscini-Award** for best contribution: 7th International Ascona Workshop on Cardiomyocyte Biology, Ascona, April 2012: G. Guex 
   *Cook-Togni / Cardiology*

5. 3rd place poster prize (“**Young Investigator Award**”) at the European College of Sport Science: “Acquisition matters: Contralateral transfer of interference depends on training duration”: B. Lauber 
   *Taube / Movement and Sports Sciences*

6. **Poster Prize 2012 of the Swiss Society of Neurosciences**: Volker Henn Best Poster Award “Individual pattern detection of Parkinson disease using susceptibility weighted imaging (SWI)”, S. Badoud 
   *Rouiller / Neurophysiology*

7. **Poster Prize 2012 of the Swiss Society of Neurosciences (SSN)**: Volker Henn Best Poster Award "Postnatal development of the rat and monkey amygdala: a basis to understand human neurodevelopmental disorders", poster presented by Loïc Chareyron 
   *Lavenex / Cognitive Development*

8. **Best poster at the UNIFR Medicine Research Days** “Distinct brain network for the inhibitory control of each language in bilinguals” (L. Chouiter) 
   *Spierer / Neurology*
2. Funding granted in 2012

Total funding granted in 2012: 8'594'647 CHF

European funding agencies
Total 2012: 340'000 CHF

1. EMBO Long-Term Fellowship
   Collaboration with B. Schwaller
   Erhardt / Microbiology

2. Marie Curie International Incoming Fellowship
   Collaboration with B. Schwaller
   Erhardt / Microbiology

Swiss federal funding agencies (CUS, CRUS, SNF)
Total 2012: 5'079'347 CHF

A. Cooperation projects
Total 2012: 2'190'000 CHF

1. Projet de coopération et d'innovation (PCI) de la CUS (Conférence Universitaire Suisse) No 8: "SPCCR Swiss Primate Competence Center for Research" with leading house at the University of Fribourg (Profs. E.M. Rouiller and G. Rainer) and partnership with the University of Zurich (Prof. K. Martin), granted Oct. 2012
   Duration of the project: 2013-2016, Total budget: 1.4 million CHF.
   Rainer and Rouiller / Neurophysiology

2. SNF ProDoc program “Cell Migration in Cancer and Inflammation”
   (www.cell-mig.ch): Graduate Program in cooperation with the University of Berne (Prof. B. Engelhardt) and the Institute of Biomedical Research in Bellinzona. Additional module RM3 “Soluble factors in Cell Migration” granted June 2012 with leading house at the University of Fribourg (Profs. C. Bourquin and C. Rüegg).
   Duration of the project: 2012-2015, Total budget for Module 3: 600'000 CHF
   Bourquin / Pharmacology, Rüegg / Pathology

   (Profs. C. Bourquin and C. Rüegg)
   Duration: 1 year
   Bourquin / Pharmacology, Rüegg / Pathology

4. SNF Prodoc grant “The role of the Pulvinar in visual cognition”
   Rainer / Visual Cognition
   160.000 CHF
B. Swiss National Foundation R’Equip
Total 2012: 390’000 CHF

1. “Tracking visual information processing in humans and monkeys: from eye movements to neural coding”
   Rainer, Annoni, Spierer and Caldara / Neurosciences

2. “Incucyte-based high throughput imaging-based platform for determination of cellular and molecular events in real time in cultured cells in vitro: application to nanomaterial studies, cancer and cardiovascular research”
   Schwaller / Anatomy, Rüegg / Pathology, Fromm / Chemistry, Rothen / AMI, Fink / Chemistry and AMI

C. Swiss National Foundation individual projects
Total 2012: 2’128’647 CHF

1. “Semester of Research for out coming member of the research council”
   Duration: 2012-2013
   Rouiller / Neurophysiology

2. “A hypothalamic site involved in the expression of positive emotions”
   Celio / Anatomy

3. “Impact of basal forebrain deep brain stimulation on information processing in the tree shrew visual cortex”
   Rainer / Visual Cognition

4. “Training-induced behavioral and brain plasticity in inhibitory control”
   Duration: 2012-2014
   Spierer / Neurology

5. “Observational and imaginary balance training - Evaluation of behavioral changes and their underlying neural adaptations”. This is the first time that a project in Sport Science in Fribourg is supported by the SNF (apart from R’equip). 
   Taube / Movement and Sport Sciences, Annoni / Neurology

6. “S6K1, arginase-II, and vascular endothelial aging”
   Duration: 2012 – 2015
   Yang / Cardiovascular Biology

7. „Postnatal development and plasticity of the primate hippocampal formation“
   2012-2015
   Lavenex / Cognitive Development

KTI (Kommission für Technologie und Innovation)
Total 2012: 370’000 CHF

1. “Generation of antibodies against new members of the EF-hand Ca2+-binding family”
   Schwaller / Anatomy
Other sources  
Total 2012: 1'248'700 CHF

   Duration: 2012-2014  
   Bourquin and Hotz / Pharmacology

2. Swiss Foundation for Cancer Research: Unraveling cellular and molecular  
   mechanisms of breast cancer metastasis to the brain  
   Duration: 2012-2015  
   Rüegg / Pathology

3. Medic Foundation: “Heterotypic interactions in the host response to tumor  
   cell growth”  
   Duration: 2012-2014  
   Rüegg / Pathology

   imaging-based platform for determination of cellular and molecular events in  
   real time in cultured cells in vitro: application to nanomaterial studies, cancer  
   and cardiovascular research”  
   Schwaller / Anatomy

5. Fondazione San Salvatore (Support for Research in the Cure of Cancer):  
   “The role of calretinin in asbestos-induced malignant mesothelioma  
   investigated in the NF2+/- mouse model”  
   Schwaller / Anatomy

6. CSC Project “Diabetic Vascular Endothelial Dysfunction and Inflammatory  
   Responses”  
   Duration: 2012-2016  
   Yi Yu and Yang / Cardiovascular Biology

7. SHF Project “Endothelial premature senescence and vascular dysfunction”  
   Xiu-Fen Ming, Gautham Yepuri, Zhihong Yang,  
   Duration: 2012  
   Yang / Cardiovascular Biology

8. Novartis Foundation for Biomedical Research  
   Duration: 2012  
   Spierer / Neurology

9. Research Funds of the University of Fribourg  
   Cook and Giraud / Cardiology

10. Research Funds of the University of Fribourg  
    Spierer / Neurology

11. Research Funds of the University of Fribourg  
    Hotz / Pharmacology, Erhardt / Microbiology

12. Research Funds of the University of Fribourg  
    Lamy and Schwaller / Anatomy
13. **Travel grant of the Swiss Society of Neuroscience** to attend the FENS (Federation of European neuroscience societies) Forum in Barcelona, July 2012  
   *AD Gindrat / Neurophysiology*

14. **Travel grant of the Swiss Society of Neuroscience** (SSN) awarded to Farfalla Ribordy to attend the FENS (Federation of European neuroscience societies) Forum in Barcelona, July 2012.  
   *Lavenex / Cognitive Development*
3. Nominations

New DepMed Professors 2012

- Prof. Anna Lauber-Biaso, 01.02.2012 (MED3, Endocrinology)
- Prof. Luis Filgueira, 01.10.2012 (Anatomy)
- Prof. Marco Merlo, 01.09.2012 (MED3, Psychiatry)
- Prof. Jean-Pierre Bresciani, 01.09.2012 (Neuropsychology in Sports)
  Jean-Pierre Bresciani has taken up the second professorship in Movement and Sport Sciences in Fribourg, therefore, the number of professors was doubled.
- Prof. Nordmann (MED3, Microbiology; start June 2013)
- Prof. Pierre Lavenex, professeur titulaire, 01.12.2011 (Neurophysiology)

Other nominations

1. Associate Professor, Institute of Psychology, University of Lausanne, August 2012
   Lavenex / Cognitive Development

2. Head of a Helmholtz Young Investigator Group, Braunschweig
   5 years, tenure-track
   Erhardt / Microbiology

3. Scientific Committee Member, Swiss Cancer League
   Rüegg / Pathology

4. Chief Editor, Swiss Archives of Neurology and Psychiatry
   Annoni / Neurology

5. Executive member, Sportwissenschaftliche Gesellschaft der Schweiz
   Taube / Movement and Sports Sciences

6. Secretary of the Swiss Society for Neuroscience (since February 2011)
   Lavenex / Cognitive Development

7. President and founding member, Commission des Médicaments of the HFR, July 2012.
   Bourquin / Pharmacology

8. Board member, Basel declaration society
   Rainer / Visual Cognition
4. Meetings hosted by DepMed members

1. “Research day” DepMed and HFR
   May 2012
   Annoni / Neurology, Ruegg / Pathology, Hayoz / HFR

2. “Day of Cognition”
   September 2012
   Annoni, Camos, Rainer, Hartmann / Neurosciences

3. Journée fribourgeoise de cardiologie
   December 2012
   Cook-Togni / Cardiology

4. Wintermeeting of the Swiss Working Group on Interventional Cardiology
   January 2012
   Cook-Togni / Cardiology

5. 6th Indo-European Course on Revascularization IECR - (European Chapter)
   Convention Centre, Hotel Hilton, Zurich; November 2012
   Cook-Togni / Cardiology

6. Vascular Progenitors in Biology and Medicine (FP7 SmArt program conference)
   Fribourg, Switzerland; September 2012
   Ruegg / Pathology and Q. Xu, King’s College, London

7. European College of Sport Science, ECSS
   Symposium within the largest European congress for sports sciences
   Bruges, Belgium; July 2012
   Taube / Movement and Sports Sciences

8. Medicine, Literature and the Web - World Knowledge Symposium 2012
   October 2012 in Villars-sur-Ollon:
   A. Wenger, R. Suciu (UniFr), M. Louis-Courvoisier (UniGe), V. Barras (UniL).
   website: www.wkd2012.ch
   Wenger / Medicine and Society

9. AGLA & Cardiovascular Biology Meeting
   March 8, 2012, Zürich
   A. von Eckardstein, Zurich; B. Kwak, Geneva; E. Niggli, Berne; C. Zuppinger, Berne; C. Matter, Zurich; Z. Yang, Fribourg.
   Yang / Cardiovascular Biology
5. Public outreach activities

1. Café scientifique : Nouvelles thérapies contre le cancer
   Fribourg, April 2012
   Rüegg / Pathology, D. Betticher and Ch. Bochet / HFR

   Fribourg, September 2012
   Taube / Movement and Sports Sciences

3. Public round table, Research Days HFR
   Fribourg, May 2012
   Bourquin / Pharmacology, Rouiller / Neurophysiology, Hayoz / HFR, Jenny / UNIFR

   “Toucher et cerveau” (S Dieguez)
   Annoni / Neurology

   Spierer / Neurology

   «Cerveau blessé, cerveau créatif» (S. Dieguez)
   Annoni / Neurology

7. ‘Universitas’, Revue de l’Université de Fribourg, 2012,
   “Apraxie chez les cérébro-lésés”
   Spierer / Neurology

8. Swiss Research Days
   Public Lecture
   Fribourg, February 6
   Rüegg / Pathology

   Lavenex / Cognitive Development
6. Other achievements and highlights

1. **Official accreditation of the Bachelor in medicine** by the CUS/OAQ
   December 2011

2. **Setup of a Stroke Unit at the HFR**
   Project accepted Sept 2012
   *Annoni / Neurology, Humm / HFR*

3. **Setup of a “Memory Platform” in Fribourg for patients**
   (memory group: Annoni)
   *Annoni / Neurology*

4. **12th European Calcium Society Meeting 2012**
   Toulouse, Sept 9-12.
   Keynote lecture: “Absence of parvalbumin affects behavior in knockout mice”
   *Schwaller / Anatomy*

5. **First PhD in Movement and Sport Science in Fribourg**
   Evelyne Kloter.
   *Taube / Movement and Sports Sciences*

6. The research work by Ming X-F. et al. "Arginase-II promotes macrophage inflammatory responses through mitochondrial reactive oxygen species, contributing to insulin resistance and atherogenesis. J Am Heart Assoc. 2012; 1:e000992doi:10.1161/JAHA.112.000992" was highlighted as featured article in the Journal and was also selected as the interview article by the working group “Atherosclerosis and Vascular Biology” of the European Society of Cardiology in October 2012.
   *Yang / Cardiovascular Biology*