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UNIVERSITÄT
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University of Bern / Switzerland
Faculty of Medicine
Faculty of Science
Vetsuisse Faculty

Report 2009

gcb

Graduate School
for Cellular and
Biomedical Sciences

Graduate School for Cellular and Biomedical Sciences

Ph. D. Program

- Biochemistry
- Biomedical Engineering
- Cell and Molecular Biology
- Clinical Research
- Immunology
- Pharmacology
- Physiology
- Structural Biology

Detailed information: www.gcb.unibe.ch



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Biomedical Sciences



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**Graduate School
for Cellular and
Biomedical Sciences**

University of Bern

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PREFACE

By the end of 2009 the *Graduate School for Cellular and Biomedical Sciences* (GCB) completed its 5th year. Since it started in 2005, 290 doctoral students from the three involved faculties (Science, Medicine, Vetsuisse) have applied to the PhD programme. 52 of these students have successfully finished their studies and obtained the PhD degree. The GCB has now reached a balanced size of 220 to 250 students. As the name "*Cellular and Biomedical Sciences*" implies, the GCB covers many different fields including biochemistry, cell and molecular biology, immunology, neurosciences, pharmacology, physiology, structural biology, biomedical engineering, epidemiology and clinical research, and at the same time it reflects the research competence areas at the University of Bern.

According to the *Universitätsleitung*, Graduate Schools are considered to be Centres of Excellence. Students are not only engaged in high quality research projects, but get trained in theoretical subjects and advanced research techniques in order to reach the goals of the doctoral education: (1) to develop scientific competence to be able to perform independent scientific work; (2) to acquire professional, methodological and transversal skills and competences; and (3) to get integrated into the national and international scientific networking.

Due to the fact that the research areas of the different GCB students are very heterogeneous, each student puts together his/her own individualized training programme and in this way can earn the necessary credits in a subject in which he/she has deficiencies and where additional competences are helpful to successfully carry on the respective research project. This format adds to the attractiveness of the programme, particularly as it also includes the possibility to attend specialized courses at other Swiss Universities or reputable Summer Schools of European research networks, for example. Additionally, participation at such inter-university events allows doctoral students to meet colleagues and international leaders of the field, essential components to build up networks for the future career.

The GCB itself is reflecting internationality, with about 48% of the students coming from outside Switzerland. For me as the coordinator it is fascinating to meet all these highly motivated people from all over the world. Again and again I am impressed by their dedication to research and their high motivation and education standards. The GCB plays also a central role in the biological and biomedical research community of the University of Bern. Thanks to the inter-facultary orientation, contacts among different research groups occur and several collaborations have been initiated so far.

Thanks to the commitment and enthusiasm of faculty members and in particular also of the intermediate staff, the GCB is able to offer a number of advanced courses, see page 6 ff. of this report. Our aim is still to improve training possibilities and to offer more excellent high-level courses. In this respect, I am very proud to report that the reputation of the GCB is so good now that researchers approach us and ask to offer courses within the GCB. For example, thanks to the initiative of Dr. Golnaz Karoubi and PD Dr. Volker Enzmann a new course on *Stem Cells & Regenerative Medicine* will start next spring.

The GCB organizes a seminar series allowing the students to invite international research leaders for seminars and discussions. Regrettably, this chance is not taken by the students as often as hoped. Along the same lines, my hope for the future is that doctoral students would identify themselves more with the GCB and would also take initiative to further develop the PhD programme.

The GCB can only stay alive and further prosper thanks to the committed support by the University rectorate and the dedicated and invaluable contribution of the committee members. We appreciate very much their scientific expertise and time they invest in the GCB. With a lot of personal commitment they evaluate and support the doctoral candidates and not infrequently act as mediators when problems arise. And last but not least, Ms. Gabrielle Favre deserves a special "thank you" for her excellent administrative support. Without her committed and precise work the programme wouldn't be running as smoothly as it does.

Bern, August 2010

PD Dr. Marlene Wolf, Coordinator

ORGANISATION

The *Graduate School for Cellular and Biomedical Sciences of the University of Bern (GCB)* offers structured training in experimental research in the fields of cell biology and biomedical sciences, leading to a PhD, MD-PhD or DVM-PhD degree. Its administration is jointly assured by the Faculty of Medicine, the Faculty of Science and the Vetsuisse Faculties of Bern and Zurich.

By the end of 2009, 217 students were enrolled in the PhD program. The thesis projects are carried out at laboratories of the three participating faculties or at affiliated institutions (currently the Institute of Virology and Immunoprophylaxis (IVI) in Mithelhäusern, the Institute for Research in Biomedicine (IRB) in Bellinzona, and the Cantonal Laboratory of Pathology in Locarno).

Research projects include topics in the areas of biochemistry, cell and molecular biology, immunology, pharmacology, physiology and structural biology, clinical research, biomedical engineering and epidemiology.

Each student is supervised by a **thesis advisor**, a **co-referee** and a member of the appropriate expert committee (**mentor**).

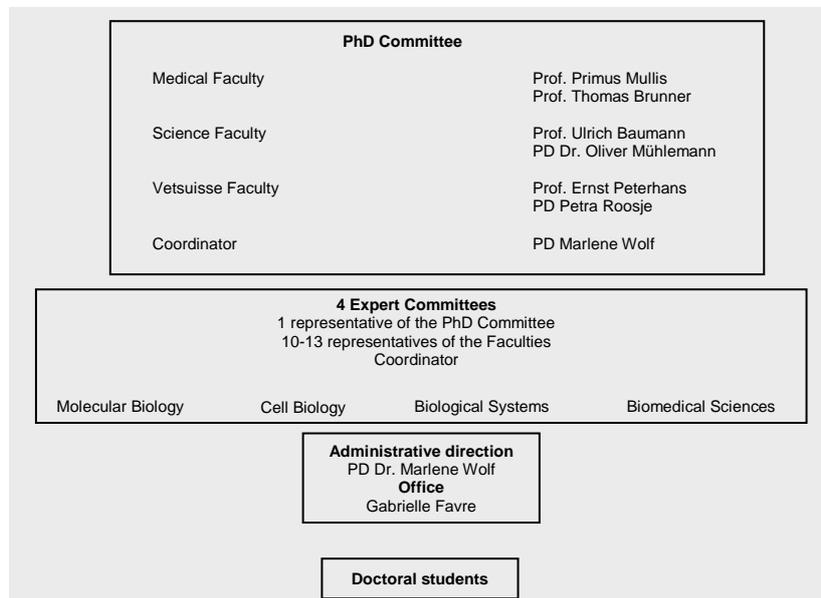
The **thesis advisor** is responsible for the research project, adequate supervision, the laboratory infrastructure and the salary of the student.

The **co-referee** must not be affiliated with the same institute as the thesis advisor and not be a collaborator on the project. He/she should be well acquainted with the subject area of the research project. The co-referee meets with the student at least twice a year to discuss and assess progress of the thesis work, as well as advising and supporting him/her.

The **mentor** decides, together with the student and the thesis advisor, on the individual training program, taking into account the student's previous education

The training program requires a certain number of learning credits which can be obtained by participating in approved, project-related and interdisciplinary courses, workshops, seminars, and lectures during the doctoral training period. Prior to graduation, candidates must pass two exams: (I) End of the first year, documenting an adequate knowledge of cell and/or medical biology or physiology. (II) End of the second year, documenting an in-depth knowledge of the research field.

ORGANISATION CHART



The GCB is headed by the PhD Committee, which is composed of two members each of the Faculty of Medicine, the Faculty of Science, and the Vetsuisse Faculty, and the program coordinator. Taking turns, each faculty member acts as president.

Four expert committees (Molecular Biology, Cell Biology, Biological Systems, and Biomedical Sciences) ensure that the different research fields are represented by experts in the respective areas.

Expert Committee “Molecular Biology” 2009

Ulrich Baumann, Department of Chemistry and Biochemistry (Sci), Head, until August
Peter Bütikofer, Institute of Biochemistry and Molecular Medicine (Med)
Sabina Gallati, Department of Clinical Research (Med)
Tosso Leeb, Institute of Genetics (Vet),
Daniel Lottaz, Rheumatology (Med),
Pascal Mäser, Institute of Cell Biology (Sci), until March
Oliver Mühlemann, Institute of Cell Biology (Sci)
Hanspeter Nägeli, Institute of Veterinary Pharmacology/Toxicology, Zurich (Vet)
Isabel Roditi, Institute of Cell Biology (Sci)
Daniel Schümperli, Institute of Cell Biology (Sci)
Beat Trueb, Department of Clinical Research (Med)
Mario Tschan, Department of Clinical Research (Med), since February

Expert Committee “Cell Biology” 2009

Ernst Peterhans, Institute of Virology (Vet), Head
Thomas Brunner, Institute of Pathology (Med)
Clemens Dahinden, Institute of Immunology (Med)
Andrew Hemphill, Institute of Parasitology (Vet)
Thomas Kaufmann, Institute of Pharmacology (Med), since November
Kenneth McCullough, IVI Mittelhäusern
Erwin Sigel, Institute of Biochemistry and Molecular Medicine (Med)
Jens Stein, Theodor Kocher Institute (Med)
Beat Suter, Institute of Cell Biology (Sci)
Marcus Thelen, IRB Bellinzona

Expert Committee “Biological Systems” 2009

Petra Roosje, Department of Clinical Veterinary Medicine (Vet), Head
Jean-François Dufour, Institute of Clinical Pharmacology (Med)
Britta Engelhardt, Theodor Kocher Institute (Sci and Med)
Brigitte Frey, Department of Clinical Research (Med)
Urs Frey, Department of Clinical Research (Med)
Peter Gehr, Institute of Anatomy (Med)
Thomas Lutz, Institute of Veterinary Physiology, Zurich (Vet)
Christoph Müller, Institute of Pathology (Med), until December
Ernst Niggli, Institute of Physiology (Med)
Jürg Streit, Institute of Physiology (Med)
Deborah Stroka, Department of Clinical Research (Med)
Marc Vandevelde, Division of Animal Neurology (Vet)

Expert Committee “Biomedical Sciences” 2009

Primus Mullis, Paediatric Endocrinology (Med), Head
Anne-Catherine Andres, Department of Clinical Research (Med)
Christoph H. Boesch, Department of Clinical Research, (Med) since May
Marco Caversaccio, Clinic of ENT, Head and Neck Surgery (Med)
Matthias Egger, Institute of Social and Preventive Medicine (Med)
Stephen Ferguson, ARTORG Center, ISTB (Med)
Martin Frenz, Institute of Applied Physics (Sci)
Walter M. Senn, Institute of Physiology (Med), since May
Klaus-Arno Siebenrock, Clinic for Orthopaedic Surgery (Med)
Hans-Uwe Simon, Institute of Pharmacology (Med), until December
Jukka Takala, Department of Intensive Care Medicine (Med) until August
Frank Stüber, Department of Clinical Research, (Med), since November
Rolf Vogel, Department of Clinical Research, (Med), since October
Brigitte von Rechenberg, Equine Hospital, Zurich (Vet)

Med: Medical Faculty

Sci: Faculty of Science

Vet: Vetsuisse Faculties of Bern and Zurich

DOCTORAL STUDENTS

Students could apply for admission to the Graduate School on 15 April, 15 August and 15 December.

At the end of 2009, 217 doctoral students (114 women, 52.5%) were registered with the GCB, almost equally distributed among the four expert committees, but interestingly, female and male students had different preferences with respect to the project orientation.

Expert committee	Number of students
Molecular Biology	49 (23 F + 26 M)
Cell Biology	54 (31 F + 23 M)
Biological Systems	50 (33 F + 17 M)
Biomedical Sciences	64 (27 F + 37 M)

The experimental work is carried out in research groups of the Medical Faculty (168 students), the Faculty of Science (12), the Vetsuisse Faculties in Bern (16) and Zurich (11), the Institute for Research in Biomedicine in Bellinzona (3), the Institute of Virology and Immunoprophylaxis in Mithelhäusern (5), and the Cantonal Laboratory of Pathology in Locarno (1).

The GCB is internationally oriented and represented by doctoral students with master diplomas from 24 different countries. 104 students have a degree from a foreign university (48%).

COURSES AND SEMINARS

The PhD program involves theoretical training, in addition to the experimental work on the research project. For each student, seminars and courses are individually selected from the teaching units of the faculties, but also from courses offered by other Swiss Universities, in particular by ETHZ or EPFL.

Courses organized and supported by GCB are listed below.

Tutorials and book clubs

A relevant textbook or selected scientific publications of the field are studied and discussed in small groups that are chaired by a senior scientist.

- *Immunology* (book by Abul K. Abbas, *Cellular and Molecular Immunology*)
- *Molecular Biology of the Cell (Happy Cell)*, (book by Bruce Alberts et al.)
- *Topics in Tumor Biology* (lectures and discussions of scientific publications), organized by D. Stroka, M. Tschan, and Y. Zimmer, DKF
- *Excitation-Contraction Coupling and Cardiac Contractile Force* (book by Donald M. Bers), organized by Ernst Niggli
- *Long-term Outcome of Childhood Cancer* (discussions of scientific publications), organized by Claudia Kuehni
- *Classical papers in public health* (discussions of scientific publications), organized by Matthias Egger
- *Epidemiology* (book by Leon Gordis), organized by Claudia Kuehni
- *Essential Medical Statistics* (book by B.R. Kirwood and J.A.C. Sterne, Blackwell Publishing), organized by Marcel Zwahlen
- *Infectious Diseases* (discussions of scientific publications), organized by Nicola Low

Practical Courses, Workshops, Summer School

- *Bioinformatics*, organized by Amit V. Pandey, DKF
- *Cell migration*, organized by B. Engelhardt, R. Lyck, and J. Stein, Theodor Kocher Institute
- *DNA sequencing and mutation analysis*, organized by T. Leeb and B. Haase, Vetsuisse Faculty
- *Epidemiology & Biostatistics*, organized by M. Doherr and G. Schüpbach, Vetsuisse Faculty
- *Positional cloning*, organized by C. Drögemüller, Vetsuisse Faculty
- *Immunology*, organized by A. Zurbriggen, G. Bertoni, and E. Marti, Vetsuisse Faculty
- *Immunofluorescent staining*, organized by S. Yousefi, Institute of Pharmacology

- *Molecular biological methods in clinical research*, organized by A.-C. Andres, DKF
- *Vascular cell biology*, organized by B. Engelhardt, U. Deutsch and R. Lyck, Theodor Kocher Institute
- *Summer school on Inflammation, Immunomodulation, Inspiration*, organized by H.-U. Simon and S. Yousefi, Institute of Pharmacology
- *Workshop on recent stereology*, organized by M. Ochs, Institute of Anatomy

Graduate School Seminar Series

The Graduate School seminar series is organized by the students who have the opportunity to invite internationally renowned specialists from their field of research for an interactive teaching lecture and a research seminar intended for a broad audience.

- 27 February 2009: **Hans-Joachim Schnittler**, Institute of Physiology, Technische Universität Dresden, Germany
Plasticity of endothelial cell junctions
 Host: Ali Al Kaabi, Dept. of Clinical Research
- 16 April 2009: Daniel S. Peeper, Division of Molecular Genetics, Netherlands Cancer Institute, Amsterdam
Resolving cell-intrinsic tumor suppression for cancer drug target discovery
 Host: Markus Germann, Dept. of Clinical Research
- 29 May 2009: **Alf Hamann**, Center of Infection Biology and Immunity, Dept. of Experimental Rheumatology, Charité Universitätsmedizin Berlin
Development and functional properties of regulatory T cells
 Host: Prof. Britta Engelhardt, Theodor Kocher Institute
- 10 November 2009: **Kathleen J. Green**, Depts. of Pathology & Dermatology, Northwestern University, Feinberg School of Medicine, Chicago, USA
Desmosomes: At the intersection of adhesion and signaling
 (together with Vetsuisse Faculty Bern)
 Host: Prof. Eliane J. Müller
- 27 November 2009: **Peter Baumann**, Stowers Institute for Medical Research & Dept. of Molecular & Integrative Physiology, University of Kansas School of Medicine, Kansas City, USA
Telomerase and chromosome end protection
 Host: Marc-David Ruepp

Students' Symposium

On 28 January 2009, the 3rd Graduate School Students' Symposium was held on the premises of the Department of Chemistry and Biochemistry: During a whole day, the different research projects of the GCB doctoral students were presented in 18 short talks and 150 posters. They illustrated the wide range of topics covered by the GCB and demonstrated the students' consistently high level of competence in the fields of cell biology and biomedical sciences. The symposium offered an excellent opportunity for both GCB students and their supervisors to engage in a reciprocally rewarding and highly stimulating discussion on the research work going on at the GCB. The invited guest speaker, Prof. Pascal Mäser, Institute of Cell Biology, gave a talk on "Drug action and drug resistance in African trypanosomes". The breaks were extensively used for further informal discussions and active networking.

GRADUATIONS

In the course of 2009, 41 students successfully completed the PhD program of the GCB and obtained their doctoral degree, jointly issued by the Faculty of Medicine, the Faculty of Science, and the Vetsuisse Faculty.

Nineteen of the graduates are foreign students who joined the GCB for their PhD studies.

2009 GCB Graduates (alphabetical order)

Eric Aeby, PhD (16 December)

Department of Chemistry and Biochemistry (Prof. A. Schneider)

Conserved and unique features of selenocysteinyl-tRNA^{Sec} formation in the parasitic protozoan Trypanosoma brucei

Sveva Ambrosetti-Giudici, PhD (11 May)

Institute for Surgical Technology and Biomechanics ISTB (PD Dr. J. Burger)

Wireless smart surgical instrumentation for spinal interventions

Michael Bieri, PhD (16 February)

Dept. of Clinical Research, Cardiology (Prof. P. Mohacsi)

Endothelial dysfunctions after transplantation: Adverse effects of anti-HLA I antibodies and immunosuppression

Adrian Britschgi, PhD (8 April)

Dept. of Clinical Research, Haematology/Oncology (PD Dr. M. P. Tschan)

DAPK2, EGCG and autophagy in neutrophil differentiation and retinoic acid-therapy of acute myeloid leukemic cells

Salman Chegini, PhD (8 October)

Institute for Surgical Technology and Biomechanics ISTB (PD Dr. S. Ferguson)

Constituent-based tissue models for the simulation of hip joint pathologies

Andrea Eberle, PhD (18 February)

Institute of Cell Biology (PD Dr. O. Mühlemann)

Recognition and elimination of nonsense mRNAs in human cells

Lars Christian Ebert, PhD (22 December)

Institute of Forensic Medicine (Prof. M. Thali)

The Virtobot – a multi functional tool for surface scanning and minimally invasive post-mortem biopsy

Thusitha Gajanayake, PhD (24 February)

Dept. of Clinical Research, Cardiovascular Research (Prof. R. Rieben)

Effects of endothelial cell protection in induction of transplantation tolerance

Rebekka Geiger, PhD (25 June)

Institute for Research in Biomedicine IRB (Dr. F. Sallusto)

Analysis of the human naïve T cell repertoire and identification of a novel T helper subset

Samoa Giovannini, DVM-PhD (16 November)

Institute of Pathology (PD Dr. P. Mainil-Varlet, PD Dr. D. Nestic)

Cellular cross talk for cartilage tissue engineering

Elinor Goldschmidt -Clermont, DVM-PhD (23 June)

Institute of Veterinary Bacteriology, Vetsuisse Bern (Prof. J. Frey)

Virulence and control of the perch pathogen Aeromonas sobria

Kathrin Gollmer, PhD (3 July)

Theodor Kocher Institute (Dr. J. V. Stein)

Analysis of DOCK2 and PI3K during CD4⁺ T lymphocyte migration and activation in vitro and in vivo

Natalia Guzmán Ramírez, PhD (21 August)

Dept. of Clinical Research, Urology (Prof. G. Thalmann)

Characterization of stem/progenitor cells from human prostate cancer tissue

Kay Jann, PhD (27 March)

Div. of Psychiatric Neurophysiology, University Clinic of Psychiatry (PD Dr. Th. Koenig)

Restless Rest: The brain's resting state explored by combined EEG and fMRI

Mathias Jenal, PhD (3 April)

Dept. of Clinical Research, Haematology/Oncology (PD Dr. M. P. Tschan)

HIC1 and BCL2A1 – novel factors involved in myeloid differentiation and survival

Olivia Keiser, PhD (10 November)

Institute of Social and Preventive Medicine ISPM (Prof. M. Egger, Dr. M. Brinkhof)

The clinical and public health epidemiology of combination antiretroviral therapy in low-income settings: Collaborative analyses of cohort studies

Ülkan Kilic, DVM-PhD (13 August)

Institute of Veterinary Physiology, Vetsuisse Zurich (Prof. M. Gassmann)

Neuroprotective and neurorestorative effects of erythropoietin after brain injury

Dior Kingston, PhD (2 October)

Institute for Research in Biomedicine IRB (Prof. M. G. Manz)

Role of relevant cytokine/cytokine receptor expression and function during steady state and immunological challenges in dendritic cell development in mice in vivo

Stephan Klossner, PhD (17 August)

Institute of Anatomy (Prof. M. Flück)

Mechano-dependent signaling pathways control protein synthesis in skeletal muscle

Nina Kozic, PhD (26 August)

Institute for Surgical Technology and Biomechanics ISTB (Dr. M. Reyes, Prof. L. P. Nolte)

Statistical shape space analysis based on level sets for optimization of orthopaedic implant design

Jens David Langhoff, DVM-PhD (24 November)

Equine Department, Vetsuisse Zurich (Prof. B. von Rechenberg)

Anchoring implants into bone – An in vivo approach

Priska Lochmatter, PhD (4 November)

University Clinic of Rheumatology, Clinical Immunology & Allergology (Prof. W. J. Pichler)

Cytokine secretion and CD69 up-regulation in the diagnosis of delayed-type drug hypersensitivity

Nicole Luckschander, DVM-PhD (28 May)

Institute of Pathology (Prof. Th. Brunner, Dr. N. Corazza)

Characterization of canine intestinal intraepithelial lymphocyte population subsets

Sara Christina Meyer, MD-PhD (20 February)

Div. of Haematology, University Hospital (Inselspital) (Dr. J. Kremer Hovinga)

Characterization of ADAMTS13 mutations in hereditary and acquired thrombotic thrombocytopenic purpura

Brigitte Morand, PhD (17 February)

Institute for Infectious Diseases ifik (Prof. K. Mühlemann)

Streptococcus pneumoniae: Heteroresistance to penicillin – Roles of the polysaccharide capsule genes in growth and colonization

Ulrike Naumann, PhD (15 December)

Institute for Research in Biomedicine IRB (Prof. M. Thelen)

The function of human CXCR7 (RDC1)

Mario Noti, PhD (2 July)

Institute of Pathology (Prof. Th. Brunner)

Role and regulation of intestinal glucocorticoid synthesis in acute intestinal inflammatory disorders

Marta Owczarek-Lipska, PhD (26 June)

Institute of Genetics, Vetsuisse Bern (Dr. M. H. Braunschweig)

Positional cloning of the causative mutation for bovine dilated cardiomyopathy

Jaspal Patil, PhD (9 November)

Institute of Cell Biology (Prof. H. Imboden)

An intraneuronal angiotensinergic system in the rat and human peripheral nervous system

Tatjana Pecaric Petkovic, PhD (3 April)

University Institute of Immunology (Prof. C. A. Dahinden)

Regulation of cytokine expression in mature human basophils

Christiane Pilop, PhD (11 June)

Dept. of Clinical Research, Nephrology & Hypertension (Prof. B. Frey)

Proteomics to identify mechanisms and biomarkers in renal and cardiovascular diseases

Silke Rödder, PhD (18 June)

Dept. of Clinical Research, Nephrology & Hypertension (Prof. H.-P. Marti)

A molecular biology based approach for the classification and characterization of human renal allograft pathologies based on metzincin deregulation

Maja Rothenberg, PhD (17 August)

Institute of Cell Biology (Prof. J. Kohli)

Selected aspects of meiotic recombination analyzed in Schizosaccharomyces pombe

Marc-David Ruepp, PhD (16 December)

Institute of Cell Biology (Prof. D. Schümperli)

The role of mammalian cleavage factor I in mRNA 3' end formation and gene expression

Lucien Rufener, PhD (15 December)

Institute of Cell Biology (Prof. P. Mäser)

Mechanisms of anthelmintic action and resistance in Haemonchus contortus, a gastrointestinal nematode of sheep

Rolf Spirig, PhD (10 March)

Dept. of Clinical Research, Cardiovascular Research (Prof. R. Rieben)

Role and modulation of dendritic cells in organ transplantation

Marianne Anke Stephan, PhD (27 November)

Dept. of Clinical Research, Neurology (PD Dr. A. Kaelin)

Levodopa-induced dyskinesia in Parkinson's disease – A model of disturbed synaptic plasticity in humans and its impact on motor learning

Simon Wandel, PhD (8 September)

Institute of Social and Preventive Medicine ISPM (Prof. P. Jüni, Prof. M. Zwahlen)

Multi-parameter evidence synthesis

Ellen Wernike, PhD (7 August)

Dept. of Clinical Research, Bone Biology (Prof. W. Hofstetter)

Development of biomaterial – growth factor constructs for the use as bone substitutes

Sandra Wymann, PhD (22 April)

University Institute of Immunology (Prof. B. Stadler)

Biological effects of IgG fractions from intravenous immunoglobulin (IVIg)

Anna Zawodniak, MD-PhD (16 December)

University Clinic of Rheumatology, Clinical Immunology & Allergology (Prof. W. J. Pichler)

Cytotoxic mechanisms in drug hypersensitivity reactions: In-vitro detection of cytotoxic T and NK cells in peripheral blood of patients with various drug-induced skin diseases

The graduations were distributed among the Expert Committees as follows:

Degree	Number of students from expert committees			
	Molecular Biology	Cell Biology	Biological Systems	Biomedical Sciences
PhD	8	7	8	11
MD-PhD ¹⁾	1		1	
DVM-PhD ²⁾		1	2	2

¹⁾ Doctor of Medicine and Philosophy

²⁾ Doctor of Veterinary Medicine and Philosophy

The graduates' research work was carried out at the participating faculties and institutions as follows:

Faculty/Institution	Number of graduations		
	PhD	MD-PhD	DVM-PhD
Faculty of Medicine	24	2	2
Faculty of Science	6		
Vetsuisse Faculty Bern	1		1
Vetsuisse Faculty Zurich			2
IRB Bellinzona	3		
IVI Mittelhäusern			

The GCB prize for the "Best Doctoral Thesis 2009" (CHF 3'000.–) was awarded to Eric Aeby for his work entitled "Conserved and unique features of selenocysteinyl-tRNA^{Sec} formation in the parasitic protozoon *Trypanosoma brucei*". He performed his thesis work under the supervision of Prof. André Schneider at the Department of Chemistry and Biochemistry. Our special congratulations go to Dr. Eric Aeby for his success.



Dr. Eric Aeby (left), receives the GCB prize for the "Best Doctoral Thesis 2009", from the hands of Prof. Oliver Mühlemann, during the 4th Graduate School Students' Symposium in January 2010.

Furthermore, we congratulate all graduates on their achievement and wish them all the very best for their future careers. Many of them have already moved on to new, challenging postdoc positions at universities all over the world.

MD-PHD PROGRAM

The MD-PhD program is intended for medical graduates interested in experimental research and aiming at an academic career. A structured training program within the framework of the GCB enables them to acquire a high standard of knowledge in natural sciences and physiology. According to the guidelines of the National MD-PhD Program, candidates should already start their training in the course of their medical studies and follow relevant courses and exams in cell and molecular biology or other related fields simultaneously with their medical curriculum. In 2009, we interviewed 10 medical students in their second to fourth year. An individual training program was put together for each of them. They now attend basic science courses.

The National MD-PhD Program, which is supported by the Swiss National Science Foundation (SNSF), the Swiss Academy of Medical Sciences (SAMW) and several other foundations, awards 10 to 12 fellowships every year to outstanding medical candidates studying at Swiss Universities (<http://www.samw.ch/de/Forschung/MD-PhD-Programm.html>).

This year, Berna Özdemir from the laboratory of Prof. George Thalman was awarded one of the prestigious fellowships.

Support

The GCB is supported by the University of Bern.

Information

www.gcb.unibe.ch

M. Wolf, G. Favre

August 2010