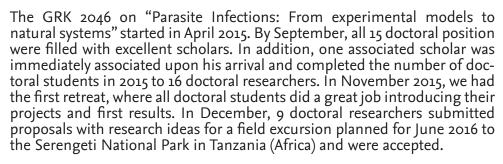


## **Welcome Note**

It is my pleasure to announce the 1st Newsletter of the DFG-funded Research Training Group 2046 (GRK 2046).



In parallel, we had monthly national and international guests within our two seminar series ("Berlin Parasitology Seminars" and "Role Models in Infection Biology") and during the winter term the faculty gave weekly lectures to the doctoral researchers on molecular, immunological and wildlife aspects of parasite infections.

Thus, we got started! Please enjoy reading the attached 1st Newsletter created and put together by the doctoral researchers of the GRK 2046.

Kind regards, Susanne Hartmann



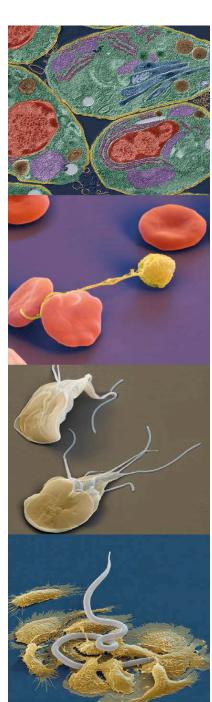
A lot happened in the past months. Everyone arrived in Berlin and has started working on a project. We even welcomed our first associate already - Ankur Midha who started in Prof. Dr. S. Hartmann's group. That means we are now in full force. To introduce everyone shortly we included little portraits in this newsletter. The missing ones will hopefully be included in the next issue.

Furthermore, we had our first GRK2046 Retreat and some students have already attended some conferences. Summaries of all events will always be included in this newsletter and can be found below.

In summer 2016, some members of our Research Training Group (RTG) will travel to the Serengeti to conduct field experiments. Congratulations to everyone who was chosen to go! We are looking forward to read about it in the summer newsletter and later on in at least one great paper.

Last but not least we would like to acknowledge the proactivity and individual initiatives of GRK 2046 students, such as organizing events or even entire lectures, going abroad to learn new techniques, reaching out for help and development that not only takes you further but may also benefits other people. Thanks a lot!

(Laura Radtke and Norus Ahmed)





## Service Control of the Control of th







## Student Profiles (A-Z, first name)

### Ankur Midha

Studied in Canada and Germany Bachelors in Pharmacy Masters in Pharmaceutical Sciences PhD topic "Antimicrobial peptides from parasitic nematodes" Department of Immunology
Direct Supervisor: Dr. Josephine Schlosser
Doctorate Supervisor: Prof. Dr. Susanne Hartmann ankur.midha@fu-berlin.de (030/838 51092)

Christina Bredtmann Studied veterinary medicine in Austria, South Africa Diploma thesis in Uganda Internship in veterinary pathology in Switzerland PhD topic "Comprehensive molecular and proteomic cyathostomin species delineation" Institut für Parasitologie und Tropenveterinärmedizin Direct Supervisor: PD Dr. Jürgen Krücken Doctorate Supervisor: Prof. Dr. Georg von Samson-Himmelstjerna Christina.Bredtmann@FU-Berlin.de (030/838 62314)

### Costanza Tacoli

Studied in Italy and Germany Bachelors in Biology Masters in Molecular Biology PhD topic "Reduced susceptibility to antimalarial drugs and accelerated selection of drug resistance due to variant red blood cells " Instutite of Tropical Medicine and International Health, Direct Supervisor: Prof. Dr. med. Frank Mockenhaupt Doctorate Supervisor: Prof. Dr. Kai Matuschewski costanza.tacoli@charite.de (030/450 565764)

### Jonnel Anthony Jaurigue

Studied in New Zealand Bachelors in Biomedical Science Masters in Biomedical Science

PhD topic "P. falciparum glycans in adaptive immune recognition and their vaccine potential"

Department of Biomolecular Systems, Max Planck Institute of Colloids and Interfaces Direct Supervisor: Prof. Dr. Peter H. Seeberger Doctorate Supervisor: Prof. Dr. Peter H. Seeberger jonnelanthony.jaurigue@mpikg.mpg.de (030/838 59551)



## Service Setter March 2016 March 2016



## Student Profiles (cont.)

### Laura Radtke

Studied in Germany and USA Bachelors in general Biology Masters in Molecular Biology

PhD topic "Cyclic nucleotide signalling and metabolic regulation during asexual development of Toxoplasma gondii"

Department of Molecular Parasitology Direct Supervisor: Dr. Nishith Gupta

Doctorate Supervisor: Prof. Dr. Kai Matuschewski laura.radtke@hu-berlin.de (030/ 2093 6278)



### Nicole Affinass

Studied in Germany

Bachelors in Life Sciences specialized in molecular biology

Masters in Biochemistry

PhD topic "Functional characterization of Th2/Th1 hybrid CD4+ T cells

induced in parasite infections" Department of Immunology

Direct Supervisor: Dr. Sebastian Rausch

Doctorate Supervisor: Prof. Dr. Susanne Hartmann Nicole.Affinass@fu-berlin.de (030/ 838 51092)



### Norus Ahmed

Studied in UK, France and Germany

Bachelors in Biochemistry and Human Biology

Masters in Biosciences

PhD topic"Th2 immune paralysis in Toxoplasma gondii infected mice"

Department of Immunology

Direct Supervisor: Dr. Svenja Steinfelder Doctorate Supervisor: Prof. Dr. Susanne Hartmann

norus.ahmed@fu-berlin.de (030/83851092)



### **Totta Kasemo**

Studied in Sweden, Spain and Germany Bachelors in Biology and in Journalism

Master in Molecular Biology

PhD topic "Metabolic stress response and growth of intestinal parasites Eimeria falciformis and Giardia duodenalis"

Department of Molecular Parasitology, Humboldt Universität zu Berlin & Robert Koch Institute, Division 16 Mycotic and Parasitic Agents and Myco-

Direct Supervisors: Prof. Emanuel Heitlinger and Dr. Toni Aebischer

Doctorate Supervisor: Prof. Richard Lucius

Contact: totta.kasemo@gmail.com (0157/ 617 1843)







## Student Profiles (cont.)

Susana Ferreira

Studied in Lisbon

Integrated Masters in Veterinary Medicine

PhD topic "Intrinsic and extrinsic determinants of helminth parasite infec-

tion in female spotted hyenas"

Department of Evolutionary Ecology

Leibniz Institute for Zoo and Wildlife Research (IZW)

Direct Supervisor: Dr. Marion East

Doctorate Supervisor: Prof. Dr. Heribert Hofer

ferreira@izw-berlin.de (030/ 5168 520)

**Ulrich Sternberg** 

Studied in Berlin (Humboldt University)

Bachelors in Biology

Masters in Organismic Biology and Evolution

PhD topic "Apicomplexan parasite load and immune responses in the chee-

tah"

Leibniz Institute for Zoo and Wildlife Research (IZW)

Department: Evolutionary Ecology

Supervisors: Prof. Heribert Hofer, Dr. Bettina Wachter and Dr. Gábor Á.

Czirják

sternberg@izw-berlin.de (030/ 5168 527)

## **Outlook and Announcements**

New year, new challenges! There are a lot of things coming up this year – a lot of things where you can participate and show initiative. Here is a brief overview:

**Edinburgh** 

As mentioned during the GRK2046 Retreat in November we would like to establish a cooperation with the University of Edinburgh. There are many interesting groups working on different topics. Have a look if there is something you are interested in and think about it!

### **GRK 2046 Retreat 2016**

Last year Katrin Wegner, Dr. Juliane Kofer and Prof. Dr. Susanne Hartmann were kind enough to organize the GRK2046 Retreat for us. However, the upcoming ones will be organized by the students. We are a small RTG, which makes it comparatively easy to organize. Further on, there will be one 'focus' session during the retreat. So if you would like to cooperate with the University of Edinburgh this is your chance to invite your future colleagues! Last but not least you may earn up to 3 Credit Points (CP) for being an active member of the organizing committee. Details about CP need to be discussed and will be announced soon. Norus Ahmed and Laura Radtke are already part of the organizing committee for this year's ZIBI Retreat. If you do not know where to start they will be happy to give you structure, guidance and advice.



## **Outlook and Announcements (cont.)**



If you would like to travel to a special place in order to take your Ph.D. project further you should apply for the female travel award! Hand in a short application of ~150 words stating where you want to go and — of course most important — why you should be the one to win up to 1,500 € for your scientific journey! Send your application to juliane.kofer@fu-berlin.de by May 1, 2016.



There are two conferences we would like to draw your attention to:

I. BSP Spring Meeting at Imperial College London

Date: April 11th - 13th 2016

Presentation abstract submission deadline: March 7th 2016 Poster abstract submission deadline: March 30th 2016

Direct link:

http://www.bsp.uk.net/news-and-events/bsp-events/bsp-spring-meeting-2016-london/

II. 20th Annual Woods Hole Immunoparasitology Meeting

Date: April 18th – 21st 2016

Abstract submission deadline: March 21st 2016

Direct link:

https://ws3.mbl.edu/iebms/wri/wri\_p1\_display.aspx?oc=10&cc=WHIP-HOME16

Workshop: Time and project management

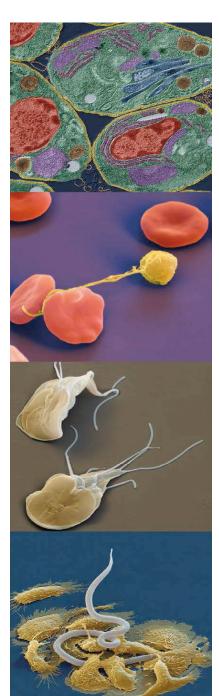
As part of your curriculum you have to participate in a time and project management workshop. This is mandatory for all students in GRK2046, unless your supervisor states that your time and project management is outstanding. Workshop details can be found at the DRS Professional Development (http://www.fu-berlin.de/en/sites/promovieren/drs/qualification/skills\_teaser/index.html).

<u>Associates</u>

We are still and always looking for new associates! If you know someone who is planning to do their Ph.D. in the field of parasite infections or Ph.D. students who already are working on parasite infections you can propose to them to become an associated GRK2046 member!

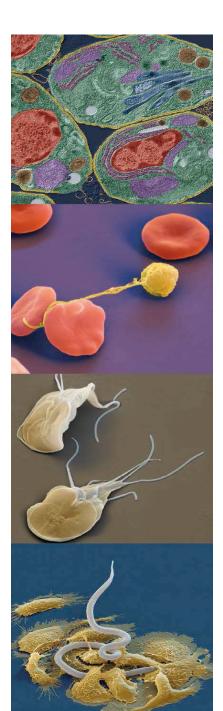
Further information is attached to this newsletter. Further on, Dr. Juliane Kofer is happy to inform you about requirements and benefits! Contact details: juliane.kofer@fu-berlin.de and

030/838 72590 or 030/2093 6054





## **Outlook and Announcements (cont.)**



Berlin Parasitology Seminar and Role Models in Infection Biology

As you may already know, the Berlin Parasitology Seminar (BPS) as well as the Role Models Seminar Series are organized by students. In other words, if there is someone you would like to meet or maybe even cooperate with in the future you should think about inviting this person!

You choose a Scientist. You propose this person to the committee. You find a location and a date. And that is how you host a BPS or Role Model event.

Supervisors and PIs are always encouraged to join. Thanks to those who attend regularly and contribute to fruitful discussions!

BPS contact: Katja Balster (k.balster@fu-berlin.de)
Role Models contact: Norus Ahmed (norus.ahmed@fu-berlin.de)

### **Practicals**

As mentioned during the retreat, our faculty will offer practical courses. Find below the dudle-link with all options. Please participate in the survey, even if you are not interested in the listed options. Courses will be offered based on your interest. Deadline: April 1, 2016

https://dudle.inf.tu-dresden.de/Possible\_Practicals\_offered\_by\_GRK\_2046\_Pls/

Co-operations within the RTG

Interact with each other! Sometimes the solution is closer than you think – ask your peers if in doubt! Synergy is key and often the path to success.

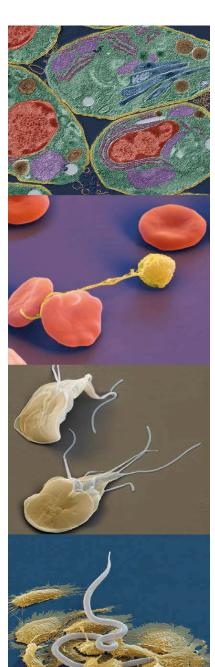
### Credit Points

Keep an eye on your curriculum and credit points! That does not mean you should attend any course that is offered. Please attend courses that will help you solve your challenges – now and in the future. Think about your strengths and weaknesses and choose wisely. You should not waste time and energy on courses you do not really need! This is not about collecting CP. The coursework is supposed to help you.

(whole section: Laura Radtke)



## To do List



As requested by some students, we will provide a little To Do list. This way you can check whether or not you are on the right track.

Have you already...

- ... enrolled as a student at your university?
- ... enrolled at DRS Biomedical Sciences?
- ... sent your project proposal (that was approved by your supervisor)?
- ... put together your thesis advisory committee (tac)?
- ... scheduled your first tac meeting?
- ... put togehter your supervision agreement?
- ... taken a good scientific practice course?
- ... planned your traveling for 2016 (or even 2017)?

Juliane needs this information for proper financial planning.

... thought about if you want to be responsible for the newsletter in the future?

If yes, cool:)

If not, you better get going:)

(Laura Radtke and Juliane Kofer)

## Fellowship extension

In order to prepare the fellowship extension for additional two years, points 1-5 of the To Do-list have to be fulfilled. We aim to prepare the new contract two months in advance to avoid any hassle with delayed payment. Questions? Contact Dr. Juliane Kofer through juliane.kofer@fu-berlin.de or 030/838 72590 (Düppel) or 030/2093 6054 (Mitte)

(Juliane Kofer)

## **Corporate Identity**

When you are attending a conference, please keep in mind corporate identity. We don't enforce a corporate design, as you first have to make sure to follow the corporate rules of your institute. If there is none, we are happy to provide a template.

Always acknowledge funding (us, where applicable other funding sources) and scientific/technical support. If you haven't saved a high-resolution file of the GRK logo yet, we are happy to provide the file once again. Lastly, the highly anticipated GRK buttons are available as of now!

(Juliane Kofer)



## 2015 Annual GRK 2046 Retreat



Taking place at the Akademie Berlin-Schmöckwitz at the southeast edge of Berlin, the 2015 Annual GRK2046 retreat welcomed all of the students of the graduate program.

This two day conference presented for many their first opportunity to present their research project ideas to their fellow graduates and Pls. The fifteen-minute talks covered the full scope of the GRK2046 vision, with dayone talks highlighting our projects regarding parasite infection and host immune responses, and day-two talks focusing on parasite impact on wild-life populations.

Other key sessions included discussions regarding our attendance of the 27th Annual Meeting of the German Society for Parasitology, and the upcoming Serengeti field project. The conference dinner between the students and the Pls also encouraged scientific discussion in a more relaxed atmosphere.

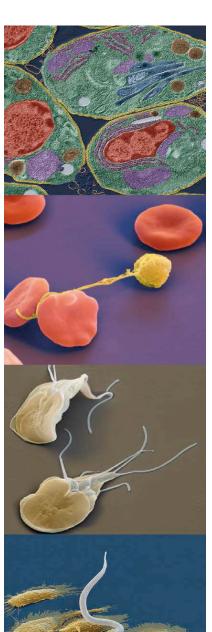
The GRK2046 retreat 2015 was a great success, and we look forward to the next one!

(Jonnel Jaurigue)





## **Berlin Parasitology Seminar Guests**



<u>Sam Dean</u> (University of Oxford, UK) samuel.dean@path.ox.ac.uk

The first presenter for the BPS lecture series after the start of the GRK 2046 in April was Sam Dean. He gave a very interesting talk about the transition zone in Trypanosoma brucei which may be required in the intraflagellar transport of proteins allowing the elongation of the flagellum. Sam Dean discussed the use of multi-pronged proteomics to identified novel transition zone proteins which was verified using fluorescence microscopy. (Norus Ahmed)

<u>Clarissa Prazeres da Costa</u>, (Technische Universität München) clarissa.dacosta@tum.de

On the 9th June of 2015, Dr. Clarissa Prazeres da Costa joined the Berlin Parasitology Seminar series to talk about "Immunosuppressive and transgenerational effects on allergic asthma during Schistosoma mansoni infection". Dr. Clarissa Prazeres da Costa shared her views on the immune responses against the helminth Schistosoma mansoni in particular the induced regulatory T cells and helminth immune-modulation in the context of allergies. The seminar was followed by a friendly discussion over pretzel. (Susana Ferreira)

<u>Murray Selkirk</u> (Imperial College London, UK) m.selkirk@imperial.ac.uk

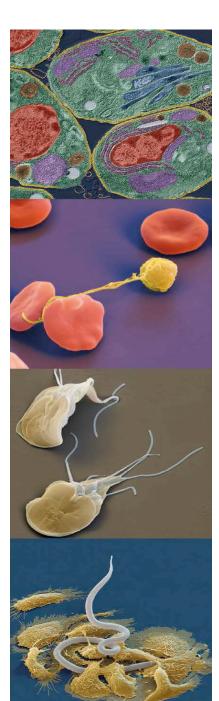
Prof. Selkirk talked about the important role that signalling through the M3 muscarinic acetylcholine receptor (M3R) plays in adaptive immunity to both Nippostrongylus brasiliensis and Salmonella enterica serovar Typhimurium, as M3R-/- mice were impaired in their ability to resolve infection with either pathogen. (Costanza Tacoli)

<u>Ildiko Dunay</u> (University of Magdeburg) ildiko.dunay@med.ovgu.de

On the 8th September Ildiko Dunay presented her recent work on toxoplasma gondii. Ildiko showed the role of inflammatory monocytes specifically Ly6C<sup>high</sup> monocytes in cerebral Toxoplasma infection. Ildiko also discussed the major immune players in Toxoplasma infection which continued over pretzels and drinks. (Norus Ahmed)



## **BPS Guests (cont.)**



<u>Subash Babu</u> (National Institute of Health Chennai, India) sbabu@mail.nih.gov

On the 13th October 2015 the Grk2046 students had the pleasure to welcome Dr. S. Subash Babu, for our Berlin Parasitology Seminar series. He presented a talk on the topic of "What lies within: Co-infections and immunity in the context of helminths and tuberculosis". We then had a nice get together afterwards and everybody had the great chance to talk to our guest informally. (Alice Balard)

<u>Matthew Taylor</u> (University of Edinburgh) Matthew.Taylor@ed.ac.uk

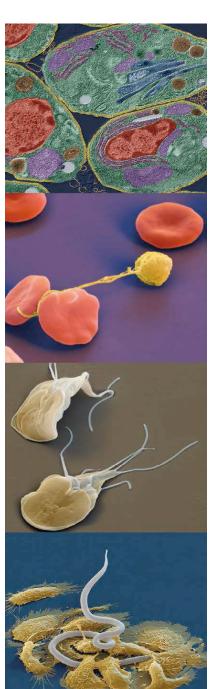
As a model they used Litosomoides infection in different mouse strains to examine the extrinsic and intrinsic regulation of the Th2 response. They found a Th2 cell-intrinsic hyporesponsiveness which is distinct from exhaustion but which is associated with IL-21 and TH2/1 cells, respectively. (Nicole Affinass)

<u>Peter Geldhof</u> (Ghent University) peter.geldhof@UGent.be

December 2015's Berlin Parasitology Seminar was honored by Prof. Peter Geldhof from the Faculty of Veterinary Medicine at Ghent University who talked about the interplay between Ascaris suum and its porcine host. The presentation, which, among others, elucidated the protective immune responses in pigs after exposure to Ascaris and its implications on diagnosis and control, evoked a very lively discussion session. As always the seminar was rounded up with a nice get together with drinks and pretzel. (Esra Yilmaz)



## **Role Model Seminar Guests**



<u>Judith Allen</u> (The University of Edinburgh, UK) j.allen@ed.ac.uk

For our first role models lecture series we had the pleasure to welcome Judith Allen to present her work on helminth infections and the role of alternatively activated macrophages. Judith also presented work on co-infections that elicit both type 1 and type 2 immune responses. After the talk during the career briefing session the PhD students had an interesting discussion with Judith about science and her experiences. (Norus Ahmed)

<u>Gabriele Pradel</u> (RWTH Aachen University) pradel@bio2.rwth-aachen.de

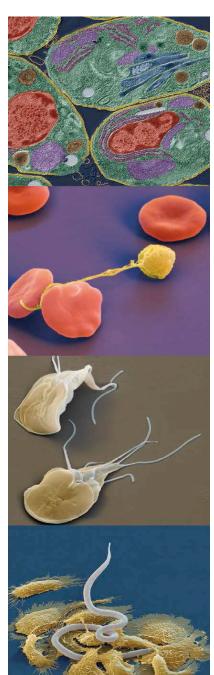
For the second role models in infection biology, Gabriele Pradel presented her work on gametogenesis during the asexual replicative stage of the life cycle. Gabriele focused mainly on the expression of different markers during the gametoyte stages of development of the parasite Plasmodium falciparium. (Norus Ahmed)

<u>Lindy Holden-Dye</u> (University of Southampton, UK) Imhd@soton.ac.uk

On the 24th of November 2015 we had the pleasure to welcome Prof. Lindy Holden-Dye for our lunchtime Role Model series. During her very interesting talk on the neural basis of nematode behavior she confronted us with the nervous system of C. elegans and microchambers to assess nematode behavior after drug challenge. After a savoury lunch Prof. Holden-Dye shared her career experience, how she worked herself from neuroscience of mammals down to helminths and how one can combine a career in research with having a family. (Christina Bredtmann)



## Student Conferences



### National Symposium on Zoonoses Research 2015, Berlin

On 2015's meeting with the theme "Research meets Public Health", GRK2046 was mainly represented by Francesca Torelli (Robert Koch Institute), who presented a poster on her work on IFNy and Toxoplasma gondii in wild rodents. Other talks and posters covered bacteria, viruses and parasites in areas from molecular biology and genetics to epidemiology and politics. The meeting hosted four keynote speakers: Prof. Christian Drosten, Univ. Bonn, Germany, Prof. Caroline Herr, Univ. Mainz/LGL Bayern, Germany, Prof. Heikki Henttonen, The Finnish Forest Research Institute, Vantaa, Finland, and Prof. René Gottschalk, Frankfurt, Germany, with a mixture of English and German presentations. On the last session, a lively discussion developed in this fairly small group of around 350 persons in total of (mainly German) researchers and also politicians.

(Totta Kasemo)

### Ringberg Conference 2015 (MPI of Colloid and Interfaces)

During a sunny week in September 2015 a number of students, postdocs and group leaders from the Max Planck Institute of Colloids and Interfaces, Department of Biomolecular Systems presented their research – past and present – at the annual Ringberg Conference held every year at Ringberg Castle. Organised this year by Dr. Daniel Varón Silva & Dr. Daniel Kolarich, the theme for this year was "Glycoproteins and Glycolipids – Synthesis, Analysis and Function".

Over the course of the week the scientists from the laboratory of Peter Seeberger, along with invited international speakers, stayed at the beautiful castle. Aspects of glycobiology were discussed while enjoying the beautiful nature of the Bavarian hillside in-between sessions. A highlight talk for me was the seminar given by invited speaker Prof. Gennaro De Libero who discussed his research on glycolipid presentation and recognition in the adaptive immune response.

The Bavarian-themed dinner evening served as a great conclusion for the conference, with our GRK2046 professor Peter Seeberger wearing his very own Lederhosen for the event!

(Jonnel Jaurigue)



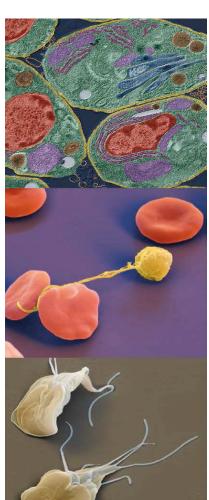


Images taken from the Ringberg Castle website http://www.schloss-ringberg.de



## Student Conferences (cont.)





Venue: Leibniz Institute for Zoo and Wildlife Research (IZW), Berlin Description: Senior PhD Students from various Leibniz Institutes present findings of their projects. There were also workshops on how to work with social media and on how to present science well and interestingly for various audiences.

Things I learned: Be careful of what you post on Facebook, Twitter etc., especially regarding your data. It might interfere with your scientific publications and/or come back to you (in a bad way) years later.

The key to a good presentation is to tell a story well, i.e. including entertainment value, being brief and to the point and choosing the right details to cut down on.

Personal Opinion: Good and interesting talks and posters, sometimes a little too complicated and detailed for the motto. Interesting workshops.

(Ulrich Sternberg)

## <u>10th International Conference on Behavior, Physiology and Genetics</u> of Wildlife

Venues: Bundesinstitut für Risikobewertung (BfR) and IZW, Berlin Description: This conference dealt with international advancements in wildlife research with an emphasis on conservation. Topics were, among other things, the current investigations of conflicts between humans and wildlife (with some proposed solutions), the extent and consequences of poaching and destruction of natural habitat on wildlife, or the development of new ecologic dynamics in urban habitats.

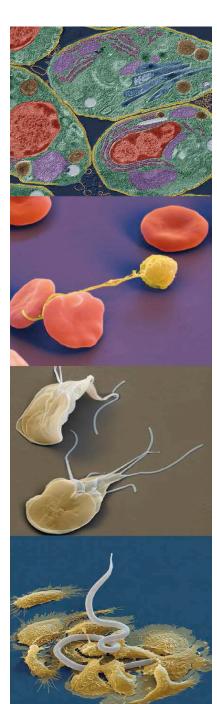
Things I learned: Conservation is difficult because the destruction of habitat, potentially the biggest factor contributing to species extinction, is usually a result of economic interests, especially in poor countries. Getting the locals to recognize the immense value of biodiversity is key to succeeding in conservation efforts.

Personal Opinion: Great plenary talks. My personal highlight was James Dietz telling the inspiring tale of how over the course of some 20 years, a small team of scientists managed to save the seemingly doomed Golden Lion Tamarin from extinction.

(Ulrich Sternberg)



## Student Conferences (cont.)



25th Annual Meeting of the German Society for Cytometry (DGfZ) "Past, present and future)"

Venue: Deutsches Rheuma-Forschungszentrum (DRFZ), Berlin Description: This 25th Annual DGfZ meeting was a special occasion. The 25 year celebration included a look back at the humble beginnings of the DGfZ and its development into a hub for interdisciplinary exchange for all users of cytometry to further the understanding of the cell. As always, new methods and technologies were introduced, and new discoveries in the fields of microbiology, immunology clinical research and nanotechnology were presented. For the first time, a genuine "product slam" was held; rapping salespeople from various companies advertised their latest cytometry-tech which was surprisingly entertaining.

Things I learned: Due to the non-standardised and manifold ways of data analysis, cytometry data analysis is a complex problem. There is a plethora of software available to help with this but caution is advised as this creates new pitfalls. Today, in order to be able to publish cytometry data, serious cytometry journals require a standard of documentation from the authors, detailing e.g. instrument settings and decision making during the analysis of the cytometry data in order to ensure data quality.

I made contact with several people giving me advice for my research. I also found some practical help on where to get antibodies suitable for cheetah immunophenotyping.

Personal Opinion: Great conference for anyone working with cytometry, especially in case a new approach is developed. Friendly atmosphere and people were open and interested in unusual topics. Very funny to see cytometry salespeople trying their best not to be boring over the course of 3 minutes stage time (not all succeeded). Very nice 25 year anniversary celebration banquet dinner.

(Ulrich Sternberg)