

# Newsletter October 2022

*"Autumn: Work in progress"*

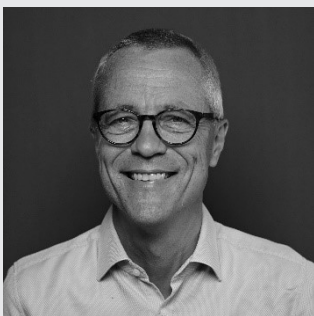
## Welcome to #4 of the CRC1451 Newsletter

Dear readers,

after a somewhat quieter summer vacation, we started the second half of the year brilliantly and finally without any drastic Corona restrictions: On August 12 Stéphane Prange, our guest scientist from the Centre de Neurosciences Cognitives (CNRS), Lyon, France, gave his farewell lecture in the Motor Control Science Club. The first PI Workshop on "Research Data Management" took place on August 19 with great success, and a lot of important issues have been discussed. On September 9 a fulminant double gave their lectures in the Motor Control Science Club: Wim Vandenberghe from the Department of Neurology of the University Hospital Leuven, Belgium together with Martyn Goulding from the Salk Institute for Biological Studies, La Jolla, USA, and current Brain Prize Winner 2022. This double draw attention of 50 live participants and 30 participants online. Finally we enjoyed a real live lecture atmosphere and had plenty of fantastic discussions and interactions. Only a week later we had another Motor Control Science Club lecture on September 16 by Victoria Abraira from the Cell Biology and Neuroscience Department of Rutgers, USA. She also gave a Gender & Diversity in Science (GADIS) lecture afterwards, which has been a great success for all career levels and raised interesting questions and solutions by an excellent speaker with a strong background on all the topics: gender and diversity in science. She and Martyn Goulding gave us exclusive interviews for this issue with inspiring insights into their careers. The Z03 workshop took place on September 13 where the participants gained insights in the Human Motor Assessment Center. On September 30 we had the second PI Workshop on "Understanding the Motor System" with great success and a lot of important issues have been discussed. The last Motor Control Science Club for this year was given on October 14 by Tamás Horvath from the Department of Comparative Medicine, Yale University School of Medicine, Connecticut, USA.

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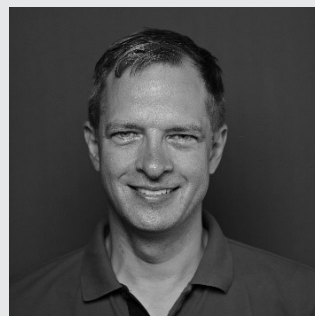
In conclusion, we look back on an interactive and busy fall that has brought the CRC1451 together tremendously. We would like to thank everyone involved and take this momentum with us into the winter. The new Motor Control Science Club dates for the first half of 2023 have been announced and the speaker line up is complete. Whenever you have any topics, scientific progress, scientific pictures, etc., please contact [sfb1451-sekretariat@uni-koeln.de](mailto:sfb1451-sekretariat@uni-koeln.de).



**Gereon Fink**  
Spokesperson



**Silvia Daun**  
Vice-Spokesperson



**Christian Grefkes**  
Vice-Spokesperson

## Categories

1. Introduction of New Employees
2. Introduction of Guest Scientists
3. Career Path Interview
4. Gender Tips
5. News & Events

## 1. Introduction of New Employees

We are happy that Jan Goetz joined the CRC1451 in project A07 as a PhD candidate:



Jan Goetz

### Who are you and where do you come from?

My name is Jan, I'm 31 years old and I was born and raised in a small town in "Sauerland" and moved to Cologne in 2014.

### What is your professional background?

After I finished school, I started training to become a health care & nursing professional. Then I completed a bachelor degree in biology with a thesis on feeding trials with *Drosophila melanogaster* with altered serotonin & octopamine concentrations, which I performed in the lab of Prof. Dr. Henrike Scholz. In the master program „experimental and clinical neurosciences“

I focused on brain and behavior studies, my Master's thesis was devoted to longitudinal gene expression analysis in experimental stroke under the supervision of Dr. Markus Aswendt. I continued working in the University Hospital of Cologne as research assistant in the group of Dr. Aswendt to further accumulate skills on molecular biology, animal studies including behavior experiments and histological preparation and project management of ongoing studies. In August of 2022 I started my PhD under the supervision of Prof. Dr. J. Vogt.

### What is your role in the CRC1451?

Currently, I'm a PhD student in the project A07 with Prof. Dr. Johannes Vogt: Role of synaptic lipid modulated cortical excitability in motor control. I'm investigating the role of synaptic lipid regulated cortical network excitability in motor control. Moreover, I will analyse metabolic changes on phospholipid mediated cortical excitability, their effects on motor function and their implication in motor function in degenerative and psychiatric disorders.

### What was your motivation to join the CRC1451 team?

Already at the beginning of my natural science related studies I was fascinated by animals and their voluntary and forced behavior. To further understand specific behavior, I focused my field of interest into brain studies. Therefore, I decided to apply for project A07 which concentrates on cortical excitability in motor control modulated by synaptic lipid signaling. With the general topic of motor control and the interdisciplinary work of the research areas including neuroscience and clinical aspects, the CRC1451 offers the perfect collaboration of all my field of interests.

### What do you like to do when you're not working?

Besides my work on research I like to travel, try out new recipes and read books, primarily about science fiction. I enjoy daily walks with my dog and I'm very interested in technology, cars and electronics.

## 2. Introduction of Guest Scientists

Victoria Abaira spent a month (September) at the Sensorimotor Adaptation Lab, and we took the opportunity to interview her on her career path and her impressions of Germany and the CRC1451. The interview was held by our Central Office assistant Jacqueline Riffel.



Victoria Abaira

### Who are you and where do you come from?

I was born in Latin America to hard-working blue-collar parents and grew up in a rough environment. We moved to Los Angeles as immigrants when I was 12 years old and thanks to very kind and encouraging teachers, I started to get excited about science.

### What did you study and where?

I started my scientific journey at the University of Southern California by graduating in Biological Sciences and doing my PhD at Harvard Medical School.

### Why and why there?

For me, it was always about inspiring people who I wanted to be like or who encouraged me in such a kind way by showing me how to achieve my goals. I initially became very interested in science because of my high school teacher. Right after we moved from Argentina to Los Angeles, and I hardly understood the language, my teacher seemed to see a spark in me. She helped me recognize and embrace my potential, showed me opportunities for my future, and supported me a lot with pure kindness.

### What were the decisive steps in your career?

I did not always have a plan regarding the next step in my career. I chose wonderful mentors who inspired me to grow as a person. It's important to always keep an open mind and so sometimes it's also just about luck.

### What would you do differently or exactly the same again?

I am deeply grateful for the awesome mentors that I have had and for those who continue to inspire me throughout my career path today. As my mentor Dr. David Ginty taught me: "It's always about the people first and foremost. People will outlive me and it's their stories that will be told about me."

### Which CRC1451 project is your visit related to and how long do you stay?

Together with the Sensorimotor Adaptation Lab, we aim to understand how the somatosensory framework of touch is connected to the circuits of motor control. We are collaborating since 2017 and for now, I am happy to stay here for a whole month!

### What is the purpose of your stay?

You can't do research alone. The CRC has the right vision of how scientific research should be done: by collaborations. Those collaborations are more than just information transfer. They are related to creating new concepts in mind by sensing holistic new impressions: Meeting interesting people in a new environment and capturing sparks of inspiration.

### What do you think is typically German?

The German sense of balance in terms of an orderly environment and mindset.

### What do you miss the most during your visit?

To be completely honest, I directly noticed the narrow toilet rooms as well as the small toilets themselves ;-)

### What allows you to relax from work?

My ideal settlement is relaxing with an Aperol Spritz, joined by friends, and hearing my daughter talking about her day and the challenges she has to face.

### Do you have any tips for young colleagues on how to deal with frustrations?

Frustrations will always be a part of life. Rather than trying to avoid them, the point is learning how to deal with frustrations. It is about seeing everything in perspective.

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## 3. Career path interview

Since we were lucky to have Martyn Goulding as a guest speaker at our Motor Control Science Club, we took the opportunity to interview him on his career path :-). The interview was held by our Central Office assistant Jacqueline Riffel.

### Martyn Goulding



#### What did you study, why and where?

I started my scientific journey at the Auckland University Medical School with the original intention of earning an MD degree. Eventually, however, I got the opportunity to work in Raymond K. Ralph's Lab related to cancer research which gave me a newfound interest

in research. So, I decided to switch to another PhD program: We were studying the role of cyclic AMP in tumor cell growth regulation and did further research on regulating pathways of c-fos and other oncogene expressions.

At the end of my time during my PhD, a friend of mine returned from Canada, where he was doing his Postdoc. His research was also focused on c-fos, but specifically related to its role as an activity marker in the brain. Since he did not have the ability to do some required molecular experiments, we decided to continue working together and eventually published two papers. I already was interested in neurosciences but this collaboration had enhanced my interest further. Therefore, my next step became my

postdoctoral research within this field which I decided to do in Germany.

During the time of my postdoctoral research, this new area of science, Neurobiology, just started to open up. There were (and still are) a lot of discoveries to be made, so many questions that needed to be answered, and therefore so many interesting things to work on. When we made a discovery, a bunch of new questions arose which could have been addressed. Even now, I wish I could have done more research related to several different aspects. But there was always already something new and profoundly interesting going on and I needed to decide which aspect I want to continue to focus on.

So, in the end, I found something I was deeply interested in, focused on my vision but also went with the flow.

#### What were the decisive steps in your career?

The essential thing is that you choose to work on what you think are important and fundamental questions. I started my Postdoc in 1989 in this new research area addressing (neuro-)developmental questions from knowing nothing. In the end, a lot of people ended up working in this field and the amount of knowledge grew exponentially. But I was lucky to be out there from the beginning and a part of the early discoveries that have been

made. So, I took advantage of that by looking for opportunities to see connections from one aspect we just understood to another one and addressing questions arising from that.

#### What would you do differently or the same again?

I can't say that I made too many mistakes. However, it hasn't been a straightforward pathway. I recall several times when I could have been more careful, and in terms of doing a better job regarding some of the questions, I was trying to answer. Sometimes I can be a little big picture but at some point, it is necessary to fill in all the details which I did not always get exactly right. And therefore, I am fortunate that I had other people who did that for me. I think you need both types of people: Some who preserve the big picture, as well as others who fill the remaining gaps. I've been very lucky to manage to have a great career because of many people who have helped me get to where I ended up.

#### What allows you to relax from work?

I enjoy going hiking, traveling, a little bit of sailing, and I also do a lot of work around the house (however I don't know if that's relaxing or not :)). I also spend a lot of time with Habitat for Humanity, a project started by Jimmy and Rosalynn Carter with the mission to build houses for homeless families. Like many others, I am a volunteer coming in to help, ended up working on

three projects in my hometown. Although the initial reason for volunteering is to give something back, I always think that I get more from doing it. It's actually the best thing, it's my "me-too-help" day.

#### Do you have any tips for young colleagues on how to deal with frustrations?

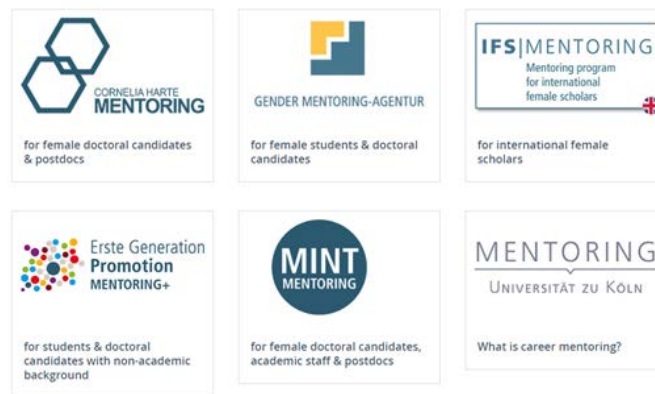
You got to be determined and you have to have some faith in yourself. When I first started, I made a lot of silly mistakes but I was always excited to come back. The important thing about science is that sometimes things become very hard. But eventually, you turn a corner and things become easy again, you just need to push through tough times. And don't be afraid of taking advice from other people who might have faced similar challenges before. Sometimes it can also be advantageous to be a little bit redundant in the way you work: Take two approaches when investigating the same question but with a different strategy. In this way you create a win-win situation, you'll always have a backup plan and if both strategies will work, it's even better, especially if you want to write about it. However, you also need to maintain your ability to do your risk assessment and don't be afraid of taking decisions- either to push through or change the strategy.

## 4. Gender Tips

### 1. 2023: Career Mentoring can take you anywhere!

The CRC1451 supports female scientists to participate in the various courses, workshops and mentoring programs, in order to foster their career! Several courses are conveniently available through the University of Cologne (<https://uni.koeln/QJZUG>). The CRC1451 covers the costs for female students, postdocs, and early career principal investigators. AND: If you would like some first-hand information on MINT Mentoring, this year's participant, Vera Komeyer ([v.komeyer@fz-juelich.de](mailto:v.komeyer@fz-juelich.de)), offers to answer your questions.

Please contact the CRC1451 Equality Board for further information on the process and how to apply for reimbursement: [sfb1451-equality@uni-koeln.de](mailto:sfb1451-equality@uni-koeln.de)



### 2. Helping Hands

#### Do you have an acute stress situation in your family and need temporary support at your workplace?

In order to be able to continue your own research, while keeping your regular working hours, during pregnancy, parenthood (for up to 12 years), and for scientists with other care responsibilities, the CRC finances student assistants for routine duties in the lab ("Helping Hands"). Contact us ([sfb1451-equality@uni-koeln.de](mailto:sfb1451-equality@uni-koeln.de)) and we can discuss your individual needs!

### 3. Women in Neuroscience Repository



The *Women in Neuroscience Repository* (WiNRepo, [www.winrepo.org](http://www.winrepo.org)) is an online repository featuring profiles of women neuroscientists, with a description of their expertise and recommendations received by colleagues. WiNRepo was launched in February 2018 and has been growing ever since. Currently, it features **more than 1900 profiles of women scientists** in the field of neuroscience from all levels of seniority and with an important geographical diversity.

The aim of this repository is to increase the visibility of women in neuroscience and to help identify and recommend female neuroscientists for conferences, symposia, or collaborations. The repository can be searched using different filters, for example based on seniority or under-represented countries, as well as research-based keywords (e.g., specific neuroscience subfields). It also includes the possibility to **leave a “recommendation”** on profiles to alleviate some of the concerns organizers may have when selecting speakers from a list. Additionally, WiNRepo's website hosts a list of **recommendations for conference organizers** as well as a list of **publications on diversity, biases, and inclusivity**, which is intended to serve as an up-to-date bibliographic resource to the community. The user-accounts feature was also launched on the website in order to provide better control and security to those who hold a profile on the database over their data.

In a broader engagement to improve diversity in neuroscience, researchers of the WiNRepo Committee as well as collaborators contributed to different initiatives, both to promote the growth of the WiNRepo database, and to encourage conference organizers to increase diversity not only in the invited speakers list, but on all aspects of their events such as the reviewer pool, the organizing committees, the attendees, etc. To this end, WiNRepo is represented at major conferences to display the Repository and encourage discussions on gender bias in science.

WiNRepo's project is in continuous growth with increasing adherence by the scientific community. Its **Twitter Account (@WINRePo1)** has reached more than 2k followers and new volunteers have joined WiNRepo's workforce to help out in its different activities.



### 5. News & Events

All ongoing and past Events can be also found here: <https://www.crc1451.uni-koeln.de/index.php/news-events/>

#### Cologne Theoretical Neuroscience Forum (CTNF) – 11 am CET

The CTNF aims at regular talks on every 2nd Thursday of the month.

For more information, visit the website under <https://computational-systems-neuroscience.de/ctnf/>

#### Early Career Researcher (ECR) & Postdoc Specials:

##### iRTG Journal Club - 9 am CET

- › November 14: Lea Mais (B05) and Annika Sauter (X04)
- › December 12: Kimia Nazarzadeh (B05) and Jan Goetz (A07)

##### iRTG Lecture – 9 am CET

- › October 24: Johannes Vogt, “Role of synaptic lipids regulating cortical excitability in health and disease”
- › November 7: Tatiana Korotkova, Title TBD
- › November 21: Kerstin Konrad, “Interpersonal motor alignment and development in childhood and adolescence”
- › December 5: Robert Nitsch, Title TBD



More information on iRTG events will be send out by the CRC1451 iRTG coordinator Claudia Wegscheid on a regular basis. In case you don't receive the info, please contact [c.wegscheid@uni-koeln.de](mailto:c.wegscheid@uni-koeln.de).

All ECRs and Postdocs, please keep in touch with the iRTG coordinator to follow your duties within the CRC1451 programme. Please remember that the CRC1451 lectures and events are mandatory and we are having live events again under the current Covid-19 regulations.

The structured programmes (PhD and Postdoc) of the CRC1451 Graduate School can be found here: <https://www.crc1451.uni-koeln.de/index.php/young-researchers/>



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**Collaborative Research Center 1451**

Key Mechanisms of Motor Control in Health and Disease  
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