

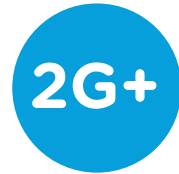


MOTOR CRC
1451

2nd CRC1451 Annual Retreat **June 1 to 3, 2022** **Programme**



The event will take place under 2G+ conditions (vaccinated and/or recovered and rapid test updated on arrival).



Venue


Van der Valk Hotel
Krefelder Strasse 169
47447 Moers
<https://moers.vandervalk.de>

Zoom in for Hybrid

<https://uni.koeln/7EQBJ>



Wednesday, June 1

5:00 pm	Check-in
6:00 pm	 Dinner
7:30 pm	Team Building Event T. Korotkova, C. Wegscheid
8:30 pm	Poster Session (Bettenkammersaal)

Thursday, June 2

8:00 am	Welcome G.R. Fink, C. Grefkes, C. Stark
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Session 1: Motor Genetics

Chair: B. Wirth, N. Kononenko

8:20 am	A01 - Understanding plastin 3 and its interactors in motor neuron function and plasticity in health and disease PI: B. Wirth, P. Kloppenburg
8:40 am	A02 - Dysregulation of the autophagy-endolysosomal system as a putative pathological mechanism behind the motor control dysfunction PI: N. Kononenko
9:00 am	A03 - Motor learning-induced plasticity of cerebellar Purkinje neuron connectivity PI: M. Bergami

Session 2: Modelling & EEG/ MEG

Chair: S. Eickhoff, J. Vogt

9:20 am	B05 - Single case predictions of motor abilities in health and disease PI: S. Eickhoff, C. Grefkes
9:40 am	B03 - Modelling neural network dynamics underlying movements in health and disease PI: G.R. Fink, S. Daun
10:00 am	A07 - Role of synaptic lipid modulated cortical excitability in motor control - importance for brain disorders PI: J. Vogt, R. Nitsch

10:20 am  Break

Session 3: Dopamin

Chair: T. Korotkova, F. Jessen

10:35 am	A04 - The role of the reward system in obesity- and ageing-associated changes of motor behaviours PI: T. Korotkova
10:55 am	B01 - Developmental mechanisms affecting motor skills and motor control PI: D. Isbrandt, J. Roeper
11:15 am	C03 - Striatal dopamine and volitional motor control: vigour, planning, and incentive salience PI: T. van Eimeren, M. Hönig + X03 - Predicting the effects of deep brain stimulation of the subthalamic nucleus (STN-DBS) on gait, falls and Freezing of Gait (FOG) in patients with Parkinson's disease (C. Semmler PhD candidate, Supervisors P. Weiss-Blankenhorn, M. Barbe)
11:40 am	C06 - Major depression as a transient functional lesion model of motor control PI: F. Jessen, M. Tittgemeyer

12:00 pm



Lunch

Open Lunch Tables:

Table 3: Early Career Researcher Support

Table 4: Diversity & Gender Team

Table 5: Data Management for Computational Modelling (INF)

Session 4: Stroke(-like) Symptoms

Chair: G.R. Fink, A. Rürger

1:00 pm	C04 - Apraxia in Alzheimer's disease: Plastic reorganisation of praxis networks in response to chronically progressive dysfunction PI: A. Drzezga, P. Weiss-Blankenhorn +X02 - The interplay between sleep, depressivity and motor performance (V. Küppers, PhD candidate, Supervisors: A. Drzezga, S. Eickhoff, M. Tahmasian)
1:25 pm	C05 - Reorganisation of the motor system following stroke PI: C. Grefkes, G.R. Fink
1:45 pm	C01 - Identification and selective stimulation of motor recovery-related functional networks after experimental stroke PI: M. Aswendt, A. Rürger, M. Schroeter +X01 - Rehabilitation of motor deficits and restoration of functional networks after mild Traumatic Brain Injury (mTBI) by transcranial Direct Current Stimulation (tDCS) (N. Rautenberg PhD candidate, Supervisors A. Rürger, R. Merkel, G.R. Fink)

Session 5: Sensory Feedback

Chair: Y. Prut, G. Gatto

2:10 pm	A05 - Neural mechanisms underlying motor flexibility in fruit fly walking PI: E. Erhardt, K. Ito, A. Büschges
2:30 pm	A06 - Sensorimotor pathways controlling voluntary movements in health and disease PI: Y. Prut, M. Nawrot

2:50 pm	Junior Research Group - Sensorimotor Adaptation PI: G. Gatto
3:10 pm	Junior Research Group - Neural circuitry for maternal behaviour and oxytocin release induced by infant cries PI: S. Valtcheva

3:30 am  **Break**

Session 6: Tic

Chair: J.C. Baldermann, K. Konrad

4:00 pm	B02 - Neural network maturation underlying top-down motor control and movement initiation in childhood and adolescence PI: S. Bender, K. Konrad
4:20 pm	B04 - Motor control under uncertainty in the healthy human brain PI: S. Vossel, P. Mengotti +X04 - Modulation of cortical networks for predictive motor control by the subthalamic nucleus: from functional imaging to deep brain stimulation and recording (A. Sauter, PhD candidate, Supervisors: S. Vossel, P. Mengotti, J.C. Baldermann, Th. Schüller)
4:45 pm	C07 - Neural networks underlying motor tic formation and suppression PI: J.C. Baldermann, V. Visser-Vandewalle
5:05 pm	Interaction Workshops 1
6:00 pm	Group Presentations Chair: G.R. Fink, C. Grefkes

7:30 pm  **Dinner with Barbecue**

Visit our Equality Matters Corner!

Friday, June 3

8:00 am	INF Progress Report M. Hanke	 <p>Special Announcements 08:00 – 13:00: Signature CRC1451 Portraits</p> <p>Open consultation hour Gender & Diversity</p>
8:30 am	Interaction Workshops 2	
9:30 am	Group Presentations Chair: A. Büschges, M. Höning	

10:30 am  **Break with GROUP FOTO**

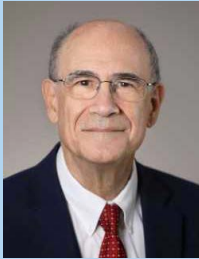
Keynote Lecture

Chair: G.R. Fink, S. Bender, C. Grefkes

11:00 am

Physiology of a voluntary movement opposite conscious intention

Marc Hallett, NIH Distinguished Investigator and Chief of the Human Motor Control Section, NINDS, NIH, Bethesda, U.S.A.



What makes a movement voluntary? One possibility is that there is a conscious decision to make the movement before it occurs (sense of willing). A second possibility is that there is a conscious perception of being the agent of the movement after it occurs. There are certainly many movements that are “automatic” and done without a sense of willing. However, when there is a preceding sense of willing does it actually have a role in deciding which movement to make and when it will occur. In a choice reaction time movement, there is the sense of choosing the movement even though instructed. We performed such an experiment with a masked stimuli including a condition where the masked stimulus instructed the opposite movement than the seen stimulus. In such a situation, subjects may respond to the masked stimulus and believe they made a mistake (the movement is made opposite conscious intent). EEG informs us what the brain is doing in this situation.

12:00 pm



Lunch

1:00 pm

Bettenkammersaal (Lower Level):

Early Career Researcher (ECR) Meeting

Chair: A. Yeldesbay, N. Rautenberg

Valkensaal (1st Floor):

PI Workshop

Gender- and Diversity-sensitive Leadership

Trainer: A. Freese, I. Fraas

3:00 pm



Break

3:30 pm

Bettenkammersaal (Lower Level):

Early Career Researcher Workshop

Reflecting on unconscious bias and raising awareness on gender- and diversity-sensitive communication

Trainer: A. Freese, I. Fraas

Valkensaal (1st Floor):

PI Meeting

Chair: G.R. Fink, C. Grefkes

5:30 pm

Farewell (G.R. Fink)

6:00 pm

End

Directions:

Car (About 40 minutes from Cologne):

- › Van der Valk Hotel Moers is located directly at the interchange Moers and thus offers a direct connection to the A40 (Venlo - Essen) and the A57 (Nijmegen - Köln).

Public Transport

From Düsseldorf or Köln (Hbf./main station):

- › Take the train RE1 direction “Hamm (Westf)” and exit the station “Duisburg Hbf”.

From Duisburg (Hbf./main station):

- › Option 1: Take the bus SB10 in direction to “Kamp-Lintfort Neues Rathaus” and exit the station “Moers Biefang” (5 min. walk from there to the hotel).
- › Option 2: Take the bus SB30 in direction to “Kamp-Lintfort Neues Rathaus” and exit the station “Moers Augustastr”; from there take the bus 3 in direction to “Duisburg Kaldenhausen Krölls” and take the exit “Moers Biefang” (5 min. walk from there to the hotel).
- › Option 3: Take the train RB31 in direction to “Moers Bahnhof” and take the exit “Moers Bahnhof”; from there take the bus 4 in the direction to “Moers Hauptfriedhof” and take the exit “Moers Schwanenring”; from there take the bus SB10 in the direction to “DU Hbf. Osteingang” and take the exit “Moers Biefang” (5 min. walk from there to the hotel).

Airplane:

- › Düsseldorf (ca. 30 km)
- › Essen/Mühlheim (ca. 30 km)
- › Weeze (ca. 50 km)
- › Köln/Bonn (ca. 80 km)
- › Frankfurt am Main (ca. 250 km): Take a connection flight to Düsseldorf airport or fast train (ICE) to Düsseldorf or Duisburg main station (Düsseldorf Hbf./ Duisburg Hbf.).

Collaborative Research Center 1451

Key Mechanisms of Motor Control in Health and Disease, Cologne | Bonn | Frankfurt | Jerusalem | Jülich | Münster

www.crc1451.uni-koeln.de

Follow us on: <https://twitter.com/crc1451>

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