



International Research Training Group 2150

**The Neuroscience of Modulating
Aggression and Impulsivity in Psychopathology**

4th SPRING SCHOOL



February 5 – 7, 2020

**UNIKLINIK
RWTHAACHEN**



Penn

JARA | BRAIN
Translational Brain Medicine

DFG

Deutsche
Forschungsgemeinschaft

Dear students and colleagues,

Welcome to the 4th annual Spring School of the International Research Training Group (IRTG) 2150: *The Neuroscience of Modulating Aggression and Impulsivity in Psychopathology*.

The 4th Spring School in Aachen follows the tradition of mutual scientific exchange between the partner universities. We are in the transition from the first to a second generation of doctoral researchers and look back to many successful defenses of our first generation students. New and experienced doctoral researchers are organizing the scientific program of this Spring School, which covers the IRTG theme. Thesis committee meetings will enable fruitful discussions of the research projects in detail. We are very happy to welcome Simon Eickhoff as a keynote speaker, one of our new supervisors of the IRTG. Keynote lectures by renowned experts Tom Denson and Maaïke Cima will further enrich the program. In addition, the alumni session with former IRTG members will shed light on career tracks after graduation. The Spring School also provides students with the opportunity to plan their mobility periods and to visit the labs in Aachen and Jülich.

Special thanks go to the DFG and the participating institutions: the RWTH Aachen University, Research Center Jülich, and the University of Pennsylvania. Particularly, we would like to thank all speakers for sharing their research and the organizing team for outstanding support.

We are very happy to welcome you here in Aachen and are looking forward to an exciting and stimulating Spring School!

With best wishes,



Ruben C. Gur



Ute Habel

IRTG2150



3rd Spring School in Philadelphia 2019

Program Overview

Wednesday, February 5

3.30 pm – 4.00 pm	Coffee time
4.00 pm – 4.30 pm	Welcome and opening: Ute Habel and Ruben Gur
4.30 pm – 5.15 pm	Keynote lecture: Simon Eickhoff
5.15 pm – 6.00 pm	Alumni session
6.00 pm – 7.00 pm	Supervisors' meeting
7.00 pm	Welcome reception and dinner

Thursday, February 6

9.00 am – 10.00 am	IRTG board meeting
10.00 am – 10.30 am	Coffee break
10.30 am – 11.15 am	Keynote lecture: Tom Denson
11.15 am – 12.15 am	Session 1: Psychopathology of aggression and impulsivity
12.15 am – 12.30 am	Photo session
12.30 am – 1.30 pm	Lunch break
1.45 pm – 2.15 pm	Session 2: Molecular modulations of aggression
2.15 pm – 3.30 pm	Session 3: Methods
3.30 pm – 5.00 pm	Student thesis committee meetings
5.00 pm – 6.30 pm	Student thesis committee meetings
7.00 pm	Farewell dinner

Friday, February 7

9.00 am – 10.00 am	Session 4: Brain organization
10.00 am – 10.30 am	Coffee break
10.30 am – 11.15 am	Keynote lecture: Maaïke Cima
11.15 am – 12.15 am	Session 5: Hormones and emotion
12.15 am – 12.30 am	Synopsis and final remarks
12.30 am – 1.30 pm	Lunch break
1.30 pm – 3.00 pm	Student thesis committee meetings
3.00 pm – 4.30 pm	Student thesis committee meetings

Wednesday, February 5

3.30 pm Coffee time

4.00 pm Welcome and opening: Ute Habel and Ruben Gur

4.30 pm	Simon Eickhoff Neuroimaging based prediction of individual-subject phenotypes	Chair: <i>Hannah Kiesow-Berger</i>
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5.15 pm	Alumni session	Chair: <i>Leon Weninger</i>
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Cedric Xia

Challenges and opportunities of large-scale neuroimaging studies of psychopathology

Ting-Yat Wong

Unveiling the comorbidity between DBD and ADHD: Combined systematic meta-analyses and predictive modeling in youth community cohorts

Jeremy Lefort-Besnard

Patterns of autism symptoms: Hidden structure in the ADOS and ADI-R instruments

6.00 pm Supervisors' meeting

7.00 pm	Welcome reception and dinner
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Thursday, February 6

9.00 am IRTG board meeting

10.00 am Coffee break

10.30 am **Tom Denson**
The neuroscience of anger, angry rumination, and anger control in healthy people
Chair:
Janna Krahe

11.15 am **Session 1: Psychopathology of aggression and impulsivity**
Chair:
Patricia Schnakenberg

Hamzah Hamid Baagil
Impulse control disorders in Parkinson's disease

Aline Nüttgens
Neural correlates of passive encoding of violent scenes across patient groups

Katharina Otten
The influence of the gut microbiome during brain development in relation to impulsivity in developmental psychopathology

Heather Green
Brain structure differentially predicts resting-state peak alpha frequency in typically developing children and children with autism spectrum disorder

12.15 am Photo session

12.30 am Lunch break

1.45 pm Session 2: Molecular modulations of aggression

Chair:
Sara Boccadoro

Friederike Seifert

The role of vomeronasal receptor proteins in investigation of aggression-promoting cues

Michelle Finner-Prevel

Psychotic symptoms, impulsivity and aggression in connection with vitamine D and antipsychotics plasma levels

2.15 pm Session 3: Methods

Chair:
Anna Schulik

Linda Orth

Real-time fMRI neurofeedback in down-regulation of supplementary motor area in patients with tic disorders

Guido Mertens

Measuring acceptance of fMRI based virtual environment NF training in depressive patients

Erik Röcher

Head movement classification on cranial T1 MR images using convolutional neural networks

Arezoo Taebi

Is altered connectivity in impulsivity causal? Neurofeedback modulation of network markers to test behavioral consequences

Sophie Niestroj

Social information processing and aggressive behavior in children and adolescents: Development and validation of a web-based German assessment battery

3.30 pm Student thesis committee meetings

5.00 pm Student thesis committee meetings

7.00 pm Farewell dinner

Friday, February 7

9.00 am Session 4: Brain organization

Chair:
*Hamzah Hamid
Baagil*

Julia Ebert

Are brain stem and spinal cord structural changes assessed by MRI predictive of the neuropsychological profile of FDRA patients?

Sara Boccadoro

Ultra high-field resting-state fMRI to investigate the Theory of Mind network in aggression and morality

Janna Krahe

Metabolic imaging and neuropsychiatric profiles in patients with hereditary ataxias

Alina Henn

Evaluating the predictive power of the TCOMO brain networks for behavioral impulsivity

10.00 am Coffee break

10.30 am **Maaïke Cima**
Psychopaths know right from wrong but just don't care:
Biological correlates of psychopathic traits

Chair:
Katharina Otten

11.15 am Session 5: Hormones and emotion

Chair:
Aline Nüttgens

Anna Schulik

The impact of the 5HTTLPR on the neural stress reaction

Anna Prothmann

The influence of sex and gonadal hormones on the acute stress response

Annika Hermes

Social-emotional changes in central diabetes insipidus (CDI) after social exclusion

Amelie Conze

Influence of a socially aversive stimuli in reward learning under vasopressin deficiency

12.15 am Synopsis and final remarks

12.30 am Lunch break

1.30 pm Student thesis committee meetings

3.00 pm Student thesis committee meetings

Student thesis committee meetings

Thursday, February 6

Students

3.30 pm – 4.15 pm

Sara Taylor

Ursula Tooley

Julia Ebert

Michelle Finner-
Prevel

4.15 pm – 5.00 pm

Eli Cornblath

Kate Brynildsen

Lena Hofhansel

Laura Bell

5.00 pm – 5.45 pm

Kamyar Khaledi

Leon Weninger

Linda Orth

Alina Theresa Henn

5.45 pm – 6.30 pm

Anna Prothmann

Anna Schulik

Lisa Yankowitz

Hamzah Hamid
Baagil

Friday, February 7

Students

1.30 pm – 2.15 pm

Patricia
Schnakenberg

Arezoo Taebi

Katharina Otten

Hannah Kiesow-
Berger

2.15 pm – 3.00 pm

Leandra Kuhn

Friederike Seifert

Erik Röcher

Anne Park

3.00 pm – 3.45 pm

Aline Nüttgens

Sophie Niestroj

Guido Mertens

Sara Boccadoro

3.45 pm – 4.30 pm

Ruth Spaniol

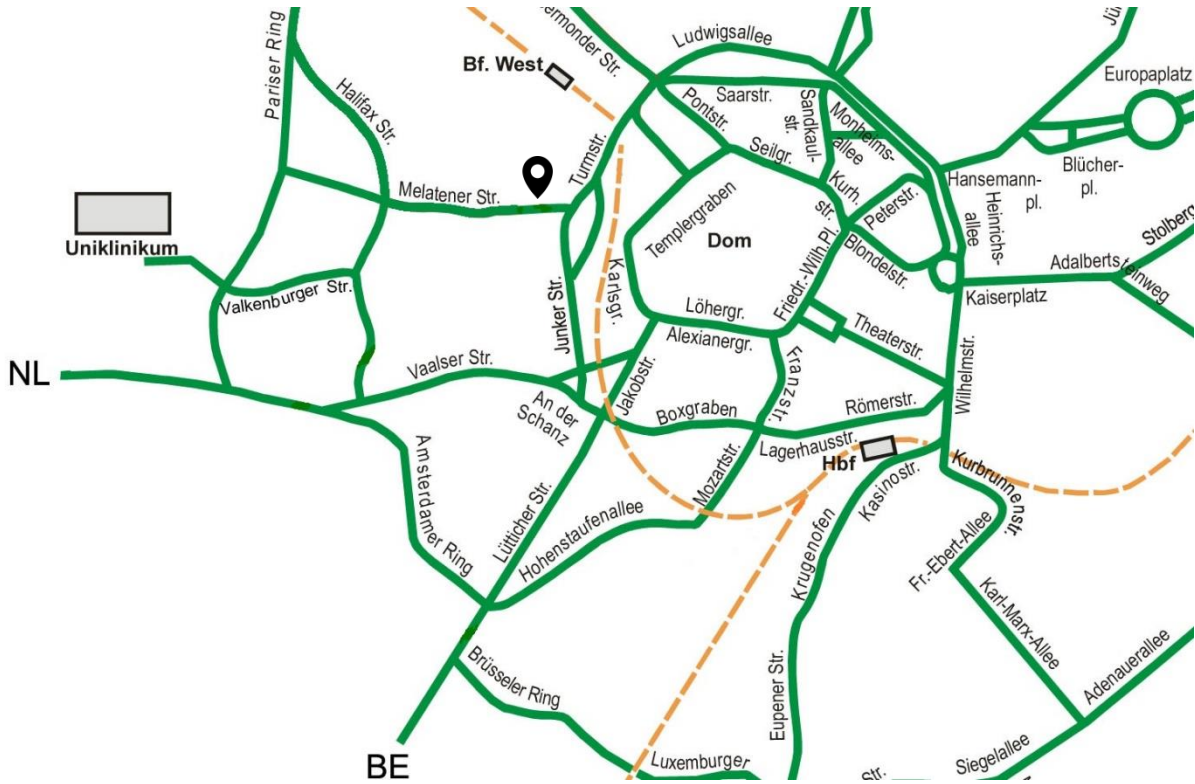
Annika Hermes

Amelie Conze

Janna Krahe

Locations

📍 All sessions take place in the **RWTH Guesthouse** (Melatener Str. 31).



Info



Network: RWTH-guests
Login: IRTG2150_spring20
Password: djlpysymi
Validity: 2020.02.02 – 2020.02.08

- 1) Connect to WiFi network “RWTH-guests”
- 2) Scan below QR-Code OR visit any website (e.g., example.net)
- 3) You will be redirected to the guest login
- 4) Login in with above credentials



Scan QR-Code for automatic login when connected to “RWTH-guests”.

IRTG2150



Spring School evaluation



Note

Note

IRTG Spokespersons

Prof. Ruben C. Gur, Ph.D., Department of Psychiatry, School of Medicine, University of Pennsylvania, 10 Gates Pavilion, 3400 Spruce Street, Philadelphia, USA.
gur@penncmedicine.upenn.edu

Prof. Dr. Ute Habel, Department of Psychiatry, Psychotherapy and Psychosomatics, Medical Faculty, RWTH Aachen, Pauwelsstr. 30, 52074 Aachen, Germany. JARA Institute Brain Structure Function Relationship (INM 10), Research Center Jülich, 52425 Jülich, Germany. uhabel@ukaachen.de



www.irtg2150.rwth-aachen.de



<http://www.jara.org/en/research/brain>