

## Molecular risk mechanisms for major psychoses II

Chair: Holger Garn

- 10:50 **Impact of the psychiatric susceptibility gene CACNA1C on mitochondrial and neuronal resilience**  
Carsten Culmsee, Marburg
- 11:10 **Effects of the psychiatric risk gene CACNA1C on neuroinflammatory responses in microglia**  
Susanne Michels, Marburg
- 11:30 **Role of the immune system in affective disorders and depression-associated behavior**  
Judith Alferink, Münster
- 11:50 General Discussion

### 12:00 Lunch

## Genetics and Treatment

Chair: Markus Nöthen

### 13:00 Selected short presentations

- 13:30 **Genomic analyses of psychiatric disorders**  
Andreas Forstner, Marburg

### 13:50 Poster session IV and coffee

- 14:50 **Divergence in genotypes and phenotypes across the affective and psychotic spectrum – from big data to disease mechanisms**  
Ole Andreassen, Oslo
- 15:30 **Methods of dimensionality reduction in genome-wide human polymorphism data**  
Bernd Müller-Myhsok, München
- 15:50 **NIRS-based neurofeedback to treat auditory hallucinations**  
Andreas Fallgatter, Tübingen
- 16:30 General Discussion
- 16:40 Summary and Farewell

**Organisation:** Tilo Kircher, Annette Tittmar  
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**Scientific committee:** Carsten Culmsee, Marburg; Udo Dannlowski, Münster; Tilo Kircher, Marburg; Markus Nöthen, Bonn; Marcella Rietschel, Mannheim; Gerhard Schratt, Zürich; Markus Wöhr, Stanford

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**Registration:** [www.for2107.de](http://www.for2107.de)

**Venues** (red buildings in map):

**Wednesday, September 7th, 2022**

Satellite Meeting: Gutenbergstraße 18, Room 00019

Öffentlicher Vortrag: Alte Aula, Lahntor 3

**Thursday and Friday, September 7th-9th, 2022**

Universitätsbibliothek: Deutschhausstraße 9

Landgrafenschloss: Schloss 1



## International Conference of the DFG Research Unit 2107

## NEUROBIOLOGY OF THE MAJOR PSYCHOSES

A Translational Perspective on Gene-Environment Interactions  
in Depression, Bipolar Disorder and Schizophrenia



7th – 9th September 2022  
Marburg, Germany

# Programme, Universitätsbibliothek

Thursday, March 26<sup>th</sup> 2020

Dear colleagues

Large epidemiological and molecular genetic studies have elucidated the risk factors for the major psychoses (major depression, schizophrenia, bipolar disorder). The pathophysiological pathways from these risks onto molecular, cellular and systemic levels remain largely elusive. Since 2014, the German Research Council (DFG) has funded our large, German, nationwide translational consortium, the DFG Research Unit 2107, with the aim to unravel these pathways in animal models and humans. The conference “Neurobiology of the Major Psychoses” aims at a transdiagnostic, dimensional view.

In our three day conference, we will discuss the current state of the field to accelerate the translation of research break-throughs into novel classification and personalized medicine.



Tilo Kircher and the PIs of the FOR2107

**Wednesday, September 7<sup>th</sup> 2022**

**Women in Science, Satellite Meeting**

**Gutenbergstraße 18, Room 00019**

10:00 – 15:00

**Chairs:** Theresa Kisko, Özge Sungur (Post-doctoral researchers)

**Öffentlicher Vortrag, Alte Aula, Lahntor 3**

19:00 Prof. Dr. Andreas Meyer-Lindenberg, Mannheim

**Ursachen und Therapien bei psychiatrischen Erkrankungen** (auf Deutsch)

**08:00 Registration**

**08:30 Welcome** - Prof. Dr. Katharina Krause, Prof. Dr. Helmut Schäfer, Prof. Dr. Frank Bremmer

**08:50 Introduction** - Tilo Kircher, Marburg

## **Imaging Genes (G) and Environment (E) in humans I**

**Chair: Marcella Rietschel**

**09:10 Building blocks for a psychiatric nosology based on common biological mechanisms**

Gunter Schumann, London

**09:50 Limbic scars – how maltreatment experiences during childhood shape brain structure and function**

Udo Dannlowski, Münster

**10:10 Quality management of MRI data in multicentre, longitudinal studies**

Andreas Jansen, Marburg

**10:30 General Discussion**

**10:40 Poster session I and coffee**

**11:10 Novel MR morphometry methods: from gyrification to machine-learning based analysis**

Igor Nenadić, Marburg

**11:30 Deconstructing genetic and environmental risk for a dimensional psychosis risk phenotype**

Tina Meller, Marburg

**11:50 General Discussion**

**12:00 Lunch**

## **Imaging G and E in humans II**

**Chair: Petra Pfefferle**

**13:00 Epigenetic signatures of childhood traumatization**

Hans Grabe, Greifswald

**13:40 The major psychoses: symptoms, risk factors and the brain**

Tilo Kircher, Marburg

**14:00 Machine learning for biotype identification in psychiatry - The utility-based cluster optimization and prediction framework**

Tim Hahn, Münster

**14:20 General Discussion**

**14:30 Selected short presentations**

**15:00 Poster session II and coffee**

## **GxE in animal models**

**Chair: Rainer Schwarting**

**16:30 Oxytocin signaling in socio-emotional behaviour: From miRNA activation to chemogenetic stimulation**

Inga Neumann, Regensburg

**17:10 Effects of Cacna1c haploinsufficiency on brain and behavior in rats**

Markus Wöhr, Stanford

**17:30 Sex-dependent effects of Cacna1c haploinsufficiency on social behavior in rats**

Theresa Kisko, Marburg

**17:50 General Discussion**

**18:00 Closing remarks**

**19:30 Dinner and get together at Marburg Castle**

**Friday, September 9<sup>th</sup> 2022**

## **Molecular risk mechanisms for major psychoses I**

**Chair: Stephanie Witt**

**08:30 Dissecting the polygenic basis of psychiatric disorders using stem cell models and functional genomics**

Michael Ziller, München

**09:10 Contribution of microRNAs to the development of affective disorders**

Helena Martins, Zürich

**09:30 Gene environment interaction in affective disorders**

Elisabeth Binder, München

**10:10 General Discussion**

**10:20 Poster session III and coffee**