

Dr. Claudia Barth

ACADEMIC TRAINING

Postdoctoral Fellow

01 | 2018 – present

Norwegian Centre for Mental Disorder Research (NORMENT), Institute of Clinical Medicine, University of Oslo, Norway

Academic employee

11 | 2017 – 12 | 2017

Medical Faculty, University of Leipzig, Germany
„Sonderforschungsbereich“(SFB)

Doctoral Research Fellow, PhD

10 | 2013 – 09 | 2017

Medical Faculty, University of Leipzig, Germany
Supervisor: Arno Villringer, Julia Sacher
Thesis title: *Exploring structural and functional brain dynamics across the menstrual cycle.* *
PhD in Neuroscience with summa cum laude
* Conducted at Max Planck Institute for Human Cognitive and Brain Sciences, Department of Neurology, Leipzig, Germany

Master of Science, Biology

10 | 2010 – 09 | 2012

University of Leipzig, Germany
Major: Neurobiology and Behavior
Supervisor: Svante Pääbo, Wulf Hevers
Thesis title: *Molecular characterization of altered neuronal plasticity in mice with a humanized version of FOXP2.* *
* Conducted at Max Planck Institute for Evolutionary Anthropology, Department of Evolutionary Genetics, Leipzig, Germany

Student Research Assistant

03 | 2011 – 09 | 2012

Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany; Supervisor: Wulf Hevers
Methods: patch clamp recordings, recording of field potentials, genetic applications

Internships

01 – 04 | 2012

Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany; Supervisor: Sonja Rossi
Methods: EEG, fNIRS with infants

02 – 03 | 2012

Senckenberg Natural History Collections of Dresden, Germany; Supervisor: Uwe Fritz
Methods: taxidermy, animal identification

05 – 07 | 2011

Wolfgang Köhler Primate Research Center, Leipzig, Germany; Supervisor: Anja Widdig
Methods: behavioral ecology

Bachelor of Science, Biology

10 | 2007 – 09 | 2010

Martin-Luther-University of Halle-Wittenberg, Germany

CURRICULUM VITAE

Supervisor: Dietmar Weinert

Thesis title: *Synchronization of circadian activity rhythms as a function of Zeitgeber amplitude in Phodopus sungorus.*

WORKSHOPS

- 02 | 09 – 06 | 09 | 2019 Computational Psychiatry Course, Zurich, Switzerland
(Hands-on training: Machine Learning)
- 08 | 2019 – 09 | 2019 Leadership course 1: Career development, Faculty of
Medicine, University of Oslo, Norway
- 02 | 2019 – 04 | 2019 School of Health Innovation, Course – “Health
innovation and entrepreneurship”, a collaboration of
University of Oslo, Norway, Norwegian University of
Science and Technology Trondheim, Norway, and
Karolinska Institutet, Sweden
- 10 | 2018 – 06 | 2019 Mentoring program for female postdocs, University of
Oslo, Norway
- 24 | 10 – 25 | 10 | 2018 Workshop “How to attract external funding”, University of
Oslo, Norway
- 09 | 03 – 12 | 03 | 2017 ECNP Workshop on Neuropsychopharmacology for
“Junior Scientists”, Nice, France, Abstract: *Acute
serotonergic action on attention-emotion interference.*
- 13 | 04 – 15 | 04 | 2015 17th Educational Course of the German Chapter of
ISMRM – “Methods and Concepts of fMRI of the Human
Brain”, Leipzig, Germany
- 28 | 11 – 30 | 11 | 2013 Statistical Parametric Mapping (SPM) Course, Lausanne,
Switzerland

CONFERENCES WITH PRESENTATIONS (excerpt)

- 07 | 09 – 10 | 09 | 2019 European College for Neuropsychopharmacology
(ECNP), Copenhagen, Denmark; presented poster:
*Exploring the impact of iatrogenic factors on global brain
changes in chronic schizophrenia – a 13-years follow-up.*
(Abstract accepted for publication in European
Neuropsychopharmacology)
- 09 | 06 – 13 | 06 | 2019 Organization for Human Brain Mapping (OHBM),
Rome, Italy, presented poster: *Impact of second-generation
antipsychotics on white matter structure in adolescent onset
psychosis.*
- 05 | 05 – 08 | 05 | 2019 Organization for the Study of Sex Differences (OSSD),
Washington D.C., USA; presented poster: *Exploring Sex
Differences and the Impact of Testosterone on Hippocampal*

CURRICULUM VITAE

and Amygdala Volumes in Schizophrenia-Bipolar Spectrum Disorder.

- 31 | 01 – 02 | 02 | 2018 “Sex hormones and the brain” Winter School, Tübingen, Germany; presented poster: *Transient structural changes in the female hippocampus across the menstrual cycle.*
- 17 | 09 – 20 | 09 | 2016 ECNP, Vienna, Austria; presented poster: *Acute serotonergic action on attention-emotion interference.*
- 26 | 06 – 30 | 06 | 2016 OHBM, Geneva, Switzerland, presented poster: *Serotonergic challenge alters BOLD-response when managing attention during negative distraction.*
- 23 | 05 – 26 | 05 | 2016 OSSD, Philadelphia, USA; presented poster: *Why sex hormones matter for neural phenotyping.*
- 15 | 11 – 19 | 11 | 2014 Society for Neuroscience (SfN), Washington DC, USA; presented poster: *Estrogen mediates fractional anisotropy changes in the hippocampus during the menstrual cycle - A pilot DWI study.*
- 08 | 06 – 12 | 06 | 2014 OHBM, Hamburg, Germany; presented poster: *Progesterone mediates brain functional connectivity changes during the menstrual cycle – A pilot resting-state MRI study.*

AWARDS | SCHOLARSHIPS

- 09 | 2019 ECNP Poster Award 2019, Copenhagen, Denmark, Poster title: *Exploring the impact of iatrogenic factors on global brain changes in chronic schizophrenia – a 13-years follow-up.*
- 10 | 2018 Dissertation Award 2018, Medical Faculty, University of Leipzig, Germany, Thesis title: *Exploring structural and functional brain dynamics across the menstrual cycle.*
- 09 | 2016 GlaxoSmithKline Travel Stipend for ECNP Conference 2016, Vienna, Austria, Abstract: *Acute serotonergic modulation of attention management during negative distraction.*
- 05 | 2016 OSSD Travel Award 2016, Philadelphia, USA, Abstract: *Why sex hormones matter for neural phenotyping.*

TEACHING EXPERIENCE

Lecturer

- 10 | 2013 – 09 | 2017 Mind, Body & Emotion Seminar, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany
- 24 | 06 | 2016 Series of lectures „Your Brain is Your Brain “– Long Night of Science, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

CURRICULUM VITAE

23 | 04 | 2015

Girls Day, “Mädchen-Zukunftstag”, Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany

Invited talks

25 | 01 | 2019

Research Meeting, Norwegian Centre for Mental Disorder Research (NORMENT), Oslo, Norway, talk title: *Sex differences and the impact of testosterone on the brain in adolescent- and adult- onset psychosis.*

19 | 11 | 2018

November Meeting, Karolinska Schizophrenia Project (KaSP), Stockholm, Sweden, talk title: *The interplay of antipsychotic medication and inflammation, and its impact on white matter structure in psychosis.*

04 | 05 | 2018

Friday Meeting, Voksenpsykiatrisk avdeling Vinderen, Oslo, Norway, talk title: *Exploring functional and structural brain dynamics across the menstrual cycle.*

15 | 09 - 16 | 09 | 2016

Gender Perspectives in Medicine (GPmed), Leipzig, Germany, talk title: *The monthly rhythm of the brain – basic research regarding sex differences in neuroimaging.*

21 | 11 | 2015

iPET.6 Symposium – Research and Diagnostic, Kunstkraftwerk, Leipzig, Germany, talk title: *Exploring functional and structural connectivity changes across the menstrual cycle.*

PUBLICATIONS (Peer-reviewed)

Barth C, Lonning V, Gurholt TP, Andreassen OA, Myhre AM, Agartz I. Impact of second-generation antipsychotics on white matter microstructure in adolescent-onset psychosis. *Under Revision (Preprint on Biorxiv - <https://www.biorxiv.org/content/10.1101/721225v1>)*

Wortinger LA, Engen K, **Barth C**, Lonning V, Jørgensen KN, Andreassen OA, Haukvik UK, Vaskinn A, Ueland T, Agartz I. Obstetric complications and intelligence in patients on the schizophrenia-bipolar spectrum and healthy participants. *Psychological Medicine*. 2019. DOI: 10.1017/S0033291719002046.

Barth C, Okon-Singer H, Schaare HL, Hellrung L, Lepsien J, Burmann I, Villringer A, Sacher J. P.3.028. Acute serotonergic action on attention-emotion interference. *European Neuropsychopharmacology*. 2017. DOI: 10.1016/S0924-977X(17)30147-5

Barth C, Okon-Singer H, Schaare HL, Hellrung L, Lepsien J, Burmann I, Villringer A, Sacher J. Acute serotonergic modulation of attention management during negative distraction. *European Neuropsychopharmacology*. 2016. DOI: 10.1016/S0924-977X(16)31221-4

Barth C, Steele CJ, Mueller K, Rekkas VP, Arelin K, Pampel P, Burmann I, Kratzsch J, Villringer A, Sacher J. In-vivo Dynamics of the Human Hippocampus across the Menstrual Cycle. *Scientific Reports*. 2016. DOI: 10.1038/srep32833

Barth C, Villringer A, Sacher J. Sex hormones affect neurotransmitters and shape the adult female brain during hormonal transition periods. *Frontiers of Neuroscience*. 2015. DOI:

10.3389/fnins.2015.00037

Arélin K, Mueller K, **Barth C**, Rekkas PV, Kratzsch J, Burmann I, Villringer A, Sacher J. Progesterone mediates brain functional connectivity changes during the menstrual cycle—a pilot resting state MRI study. *Frontier of Neuroscience*. 2015. DOI: 10.3389/fnins.2015.00044

Schaefer A, Burmann I, Regenthal R, Arélin K, **Barth C**, Pampel A, Villringer A, Margulies DS, Sacher J. Serotonergic modulation of intrinsic functional connectivity. *Current Biology*. 2014. DOI: 10.1016/j.cub.2014.08.024

PUBLICATIONS (Books/Chapter)

Barth C. “Exploring structural and functional brain dynamics across the menstrual cycle. “Dissertation, III, 82 pp., Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig (2017). ISBN: 978-3-941504-75-2

Sacher J, **Barth C**, Villringer A. „Wie beeinflussen Sexualhormone Gehirn und Verhalten?“ Scientific Report 2017 - Max Planck Institute for Human Cognitive and Brain Sciences, Year Book/Research Report, Department of Neurology, Leipzig.
(https://www.cbs.mpg.de/726094/research_report_11092376?c=7551).

Barth C. „Der monatliche Rhythmus des Gehirns: Grundlagenforschung zu Geschlechtsunterschieden im Neuroimaging“. Genderperspektiven in der Medizin (GPmed) - Abstraktband zur Tagungsreihe an der Universität Leipzig. 2016/2017. ISBN: 978-3-00055515-2

COMMUNICATION/DISSEMINATION

Press Release called „Brain in sync with hormones” based on Publication: “In-vivo Dynamics of the Human Hippocampus across the Menstrual Cycle.” (Max Planck Institute for Human Cognitive and Brain Sciences, 07.10.2016, <http://www.cbs.mpg.de/Brain-in-sync-with-hormones>)

Radio Interview at “Logo – Das Wissenschaftsmagazin” (NDR Info, 21.10.2016)

COMMISSION OF TRUST

2017 – present

Reviewer for peer-review journal
(Neuropsychopharmacology, Archives of Women’s Mental Health)

COLLABORATION (Academia | Industry)

2019 – present

Collaboration with Ann-Marie G. de Lange
Department of Psychiatry & Wellcome Centre for Integrative Neuroimaging, University of Oxford, UK
Project: *Exploring endogenous and exogenous hormonal exposure and women’s brain health using UK biobank data.*

2019 – present

Collaboration with Carolin Lewis, Aiste Seibokaite & Birgit Derntl
Department of Psychiatry and Psychotherapy, University of Tuebingen, Germany

CURRICULUM VITAE

Project (Review Article): *Influence of sex steroids on neurotransmitter systems in decision-making: contribution to sexual dimorphisms in psychiatric disorders.*

2016 – 2017

Interactions with local Startup Vivo Sens Medical GmbH for use of OvulaRing for study at Max Planck Institute for Human Cognitive and Brain Sciences, Department of Neurology, Leipzig, Germany (PI: Julia Sacher)