Leon D. Lotter, Dr. med.

Curriculum Vitae

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Education

Sep 2022 – Ongoing

PhD in neuroscience *Research group Biomarker Development*
Institute of Systems Neuroscience, University Hospital HHU Duesseldorf, Germany
INM-7: Brain and Behaviour, Research Center Juelich, Germany
Clinician Scientist Program, Max Planck School of Cognition, Germany

- Project: Multilevel brain systems underlying typical and atypical neurodevelopment
- Supervision: Prof. Juergen Dukart | Prof. Simon Eickhoff | Prof. Julian Koenig
- Collaborations:
  - *Research group Biological Child and Adolescent Psychiatry, University Hospital Cologne, Germany* (Prof. Koenig)
  - *Max Planck Institute of Psychiatry, Munich, Germany* (Prof. Binder | Dr. Spoormaker)

Dec 2017 – Sep 2022

Doctor of medicine *Research groups Clinical Neuropsychology and Biomarker Development*
Department of Child and Adolescent Psychiatry, University Hospital RWTH Aachen, Germany
INM-7: Brain and Behaviour, Research Center Juelich, Germany

- Project: Longitudinal development of resting-state fMRI alterations in Anorexia nervosa
- Supervision: Prof. Kerstin Konrad | Prof. Juergen Dukart | P.D. Dr. Jochen Seitz
- Grade: *summa cum laude*

Oct 2014 – Nov 2021

Medical studies *RWTH Aachen University, Germany*

- Elective subject: Clinical neuroscience
- Clinical internships: Child and adolescent psychiatry (6 mos) | Adult psychiatry (1 mo) | Internal medicine (4 mos) | General surgery (4 mos)

Work Experience

Sep 2023 – Ongoing

Research associate *Research group Biomarker Development*
Institute of Systems Neuroscience, University Hospital HHU Duesseldorf, Germany

- 100% ("postdoctoral") contract financed via Max Planck School of Cognition

Apr 2022 – Aug 2022

Research assistant *Research group Biomarker Development*
INM-7: Brain and Behaviour, Research Center Juelich, Germany

- Project: Linking cortical thickness development to multilevel brain systems

May 2019 – Jan 2022

Student research assistant *Research group Clinical Neuropsychology*
Department of Child and Adolescent Psychiatry, University Hospital RWTH Aachen, Germany

- Diverse projects involving neuroimaging, behavioral data analysis, and visualization

Sep 2013 – Aug 2014

Voluntary service *Samuha Samarthya, India* | *Service Civil International, Germany*

- Program: *weltwärts*, German government-funded
- Project: Creating barrier-free environments for people with disabilities in rural South India

Academic Contributions, Skills, and Personal Interests

Extracurricular Activities	**Student Representative** of the Max Planck School of Cognition (since Sep 2022) **Organization of a Journal Club** at the INM-7, Research Centre Juelich (since Oct 2023)
Software Tools	**JuSpyce** A toolbox for flexible assessment of spatial associations between brain images **ABAnnotate** A toolbox for ensemble-based multimodal gene-category enrichment analysis of human neuroimaging data
Peer Reviews	*Journal of the American Academy of Child and Adolescent Psychiatry* | *Neuropsychopharmacology* | *Translational Psychiatry* | *Schizophrenia Bulletin* | *Neuroimage* | *Neuroimage Clinical* | *Cortex* | *Frontiers in Human Neuroscience* | *BMC Psychiatry* | *BMJ Open* | *European Journal of Neuroscience*
Programming	**Python** since 2021 (*example*) | **R** since 2020 | **Matlab** since 2019 (*example*)
Languages	**German** native speaker | **English** professional proficiency
Interests	**Academic** Developmental neuroscience and psychiatry | Open science | Data science and visualization **Private** Climbing | Cycling | Photography

Publications and Preprints

Preprint	**Lotter, L. D.**, Saberi, A., Hansen, J. Y., Misic, B., Paquola, C., ... Imagen-Consortium, Nees, F., Banaschewski, T., Eickhoff, S. B., and Dukart, J. "Human cortex development is shaped by molecular and cellular brain systems". In: *bioRxiv*. Kasper, J., Caspers, S., **Lotter, L. D.**, Hoffstaedter, F., Eickhoff, S. B., and Dukart, J. "Resting state changes in aging and Parkinson's disease are shaped by underlying neurotransmission – a normative modeling study". In: *bioRxiv*. Chechko, N., Nehls, S., Losse, E., Dukart, J., and **Lotter, L. D.** "Temporal dissociation between local and global functional adaptations of the maternal brain to childbirth: A longitudinal assessment". In: *bioRxiv*.
2023	Schloesser*, L., **Lotter*, L. D.**, Offermann, J., Borucki, K., Biemann, R., Seitz, J., Konrad, K., and Herpertz-Dahlmann, B. "Sex-dependent clinical presentation, body image, and endocrine status in long-term remitted anorexia nervosa". In: *European Eating Disorders Review*. Corneille, O., Havemann, J., Henderson, E. L., IJzerman, H., Hussey, I., Orban de Xivry, J.-J., Jussim, L., Holmes, N. P., Pilacinski, A., Beffara, B., Carroll, H., Outa, N. O., Lush, P., and **Lotter, L. D.** "Beware 'persuasive communication devices' when writing and reading scientific articles". In: *eLife*. **Lotter, L. D.**, Kohl, S. H., Gerloff, C., Bell, L., Niephaus, A., Kruppa, J. A., Dukart, J., Schulte-Rüther, M., Reindl, V., and Konrad, K. "Revealing the neurobiology underlying interpersonal neural synchronization with multimodal data fusion". In: *Neuroscience and Biobehavioral Reviews*.
2021	**Lotter, L. D.**, von Polier, G., Offermann, J., Buettgen, K., Stanetzky, L., Eickhoff, S. B., Konrad, K., Seitz*, J., and Dukart*, J. "Recovery-associated resting-state activity and connectivity alterations in anorexia nervosa". In: *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*.
2020	Pankert, K., Pankert, A., **Lotter, L. D.**, Herpertz-Dahlmann, B., and Konrad, K. "Autism spectrum symptoms in children with congenital blindness". In: *Zeitschrift für Kinder- und Jugendpsychiatrie und Psychotherapie*.

* Equal contributions

Conference presentations

Jul 2023	**Organization for Human Brain Mapping (OHBM) Annual Meeting 2023** *Montréal, Canada* • Poster: Human cortex development is shaped by molecular and cellular brain systems
Mar 2023	**Minerva Symposium: Interactive Brains - From Methods to Applications** *Tel Aviv, Israel* • Invited talk: Revealing the neurobiology underlying interpersonal neural synchronization with multimodal data fusion
Mar 2023	**Meeting of the German Society for Child and Adolescent Psychiatry (DGKJP)** *Essen, Germany* • Poster: Linking cortical thickness development to molecular and cellular brain systems

Awards and Scholarships

Oct 2023 | **"Borchers Badge" for excellent dissertations at RWTH Aachen University**
- For the medical doctoral thesis "Recovery-associated resting-state activity and connectivity alterations in Anorexia nervosa" passed with distinction in 2022

Jul 2023 | **German Academic Exchange Service (DAAD) Travel Grand**
- To present a poster at OHBM 2023 in Montréal, Canada

Jun 2023 | **72nd Lindau Nobel Laureate Meeting (Physiology and Medicine)** *Lindau, Germany*
- Participation as "Young Scientist", supported by Research Centre Juelich