

# Leon D. Lotter, Dr. med.

## Curriculum Vitae

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## Education

Sep 2022 – Ongoing	<b>PhD in neuroscience</b> <i>Clinician Scientist Program, Max Planck School of Cognition, Germany</i> <i>Institute of Systems Neuroscience, University Hospital HHU Duesseldorf, Germany</i> <i>INM-7: Brain and Behaviour, Research Center Juelich, Germany</i> <ul style="list-style-type: none"><li>• Project: Multilevel brain systems underlying typical and atypical neurodevelopment</li><li>• Supervision: Juergen Dukart   Simon Eickhoff   Julian Koenig   Svenja Caspers</li><li>• 100% ("postdoctoral") contract financed via Max Planck School of Cognition</li><li>• Collaborations:<ul style="list-style-type: none"><li>– <i>Biological Child and Adolescent Psychiatry, University Hospital Cologne</i> (J. Koenig)</li><li>– <i>Max Planck Institute of Psychiatry, Munich</i> (E. Binder   V. Spormaker)</li></ul></li></ul>
Dec 2017 – Sep 2022	<b>Doctor of medicine</b> <i>Child Neuropsychology, University Hospital RWTH Aachen, Germany</i> <i>INM-7: Brain and Behaviour, Research Center Juelich, Germany</i> <ul style="list-style-type: none"><li>• Project: Longitudinal development of resting-state fMRI alterations in Anorexia nervosa</li><li>• Supervision: Kerstin Konrad   Juergen Dukart   Jochen Seitz</li><li>• Grade: <i>summa cum laude</i></li></ul>
Oct 2014 – Nov 2021	<b>Medical studies</b> <i>RWTH Aachen University, Germany</i> <ul style="list-style-type: none"><li>• Elective subject: Clinical neuroscience</li><li>• Clinical internships: Child and adolescent psychiatry (6 mos)   Adult psychiatry (1 mo)   Internal medicine (4 mos)   General surgery (4 mos)</li></ul>

## Work Experience

Apr 2022 – Aug 2022	<b>Research assistant</b> <i>INM-7: Brain and Behaviour, Research Center Juelich, Germany</i> <ul style="list-style-type: none"><li>• Project: Linking cortical thickness development to multilevel brain systems</li></ul>
May 2019 – Jan 2022	<b>Student research assistant</b> <i>Child Neuropsychology, University Hospital RWTH Aachen, Germany</i> <ul style="list-style-type: none"><li>• Diverse projects involving neuroimaging, behavioral data analysis, and visualization</li></ul>
Sep 2013 – Aug 2014	<b>Voluntary service</b> <i>Samuha Samarthya, India</i>   <i>Service Civil International, Germany</i> <ul style="list-style-type: none"><li>• Program: <i>weltwärts</i>, German government-funded</li><li>• Project: Creating barrier-free environments for people with disabilities in rural South India</li></ul>

## Academic Contributions, Skills, and Personal Interests

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

## Publications and Preprints

Preprint	<p><b>Lotter, L. D.</b> and Dukart, J. “Methodological considerations: Integrating measures across assessment modalities (book chapter)”. In: <i>OSF Preprints</i>.</p> <p>Saberi, A., Wischnewski, K. J., Jung, K., <b>Lotter, L. D.</b>, Schaare, H. L., ... IMAGEN-Consortium, Paus, T., Dukart, J., Bernhardt, B. C., Popovych, O. V., Eickhoff, S. B., and Valk, S. L. “Adolescent maturation of cortical excitation-inhibition balance based on individualized biophysical network modeling”. In: <i>bioRxiv</i>.</p>
2024	<p>Dukart, J., <b>Lotter, L. D.</b>, and Eickhoff, S. B. “Moving towards precision psychiatry: the hard nut of depression”. In: <i>Signal Transduction and Targeted Therapy</i>.</p> <p><b>Lotter, L. D.</b>, Saberi, A., Hansen, J. Y., Misic, B., Paquola, C., ... IMAGEN-Consortium, Nees, F., Banaschewski, T., Eickhoff, S. B., and Dukart, J. “Regional patterns of human cortex development correlate with underlying neurobiology”. In: <i>Nature Communications</i>.</p> <p><b>Lotter, L. D.</b>, Nehls, S., Losse, E., Dukart, J., and Chechko, N. “Temporal dissociation between local and global functional adaptations of the maternal brain to childbirth: A longitudinal assessment”. In: <i>Neuropsychopharmacology</i>.</p> <p>Kasper, J., Caspers, S., <b>Lotter, L. D.</b>, 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: <i>Biological Psychiatry: Cognitive Neuroscience and Neuroimaging</i>.</p>
2023	<p>Schloesser*, L., <b>Lotter*</b>, <b>L. D.</b>, 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: <i>European Eating Disorders Review</i>.</p> <p>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 <b>Lotter, L. D.</b> “Beware ‘persuasive communication devices’ when writing and reading scientific articles”. In: <i>eLife</i>.</p> <p><b>Lotter, L. D.</b>, 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: <i>Neuroscience and Biobehavioral Reviews</i>.</p>
2021	<p><b>Lotter, L. D.</b>, 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: <i>Biological Psychiatry: Cognitive Neuroscience and Neuroimaging</i>.</p>
2020	<p>Pankert, K., Pankert, A., <b>Lotter, L. D.</b>, Herpertz-Dahlmann, B., and Konrad, K. “Autism spectrum symptoms in children with congenital blindness”. In: <i>Zeitschrift für Kinder- und Jugendpsychiatrie und Psychotherapie</i>.</p>

\* Equal contributions

## Conferences presentations and Workshop attendance

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Dec 2024	<b>Congress of the German Association for Psychiatry and Neurology (DGPPN) Berlin, Germany</b> <ul style="list-style-type: none"><li>Talk: Evidence of dopaminergic modulation of resting state functional connectivity alterations in psychosis</li></ul>
Aug 2024	<b>Cologne Summer School in Biological Psychiatry Cologne, Germany</b> <ul style="list-style-type: none"><li>Poster: Evidence of dopaminergic modulation of resting state functional connectivity alterations in psychosis</li></ul>
Jul 2024	<b>Organization for Human Brain Mapping (OHBM) Annual Meeting Seoul, South Korea</b> <ul style="list-style-type: none"><li>Poster: NiSpace – Neuroimaging Spatial Colocalization Environment</li><li>Poster: Neurotransmitter systems explain lifespan changes of human resting-state brain activity</li></ul>
Jul 2023	<b>Organization for Human Brain Mapping (OHBM) Annual Meeting Montréal, Canada</b> <ul style="list-style-type: none"><li>Poster: Human cortex development is shaped by molecular and cellular brain systems</li></ul>
Mar 2023	<b>Minerva Symposium: Interactive Brains - From Methods to Applications Tel Aviv, Israel</b> <ul style="list-style-type: none"><li>Invited talk: Revealing the neurobiology underlying interpersonal neural synchronization with multimodal data fusion</li></ul>
Mar 2023	<b>Meeting of the German Association for Child and Adolescent Psychiatry (DGKJP) Essen, Germany</b> <ul style="list-style-type: none"><li>Poster: Linking cortical thickness development to molecular and cellular brain systems</li></ul>

## Awards and Scholarships

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Dec 2024	<b>DDPPN 2024 "best free talks abstract" award</b> <ul style="list-style-type: none"><li>See conference section, awarded with 500€</li></ul>
Oct 2023	<b>"Borchers Badge" for excellent dissertations at RWTH Aachen University</b> <ul style="list-style-type: none"><li>For the medical doctoral thesis "Recovery-associated resting-state activity and connectivity alterations in Anorexia nervosa" passed with distinction in 2022</li></ul>
Jul 2023	<b>German Academic Exchange Service (DAAD) Travel Grand</b> <ul style="list-style-type: none"><li>To present a poster at OHBM 2023 in Montréal, Canada</li></ul>
Jun 2023	<b>72nd Lindau Nobel Laureate Meeting (Physiology and Medicine) Lindau, Germany</b> <ul style="list-style-type: none"><li>Participation as "Young Scientist", supported by Research Centre Juelich</li></ul>