

Leon D. Lotter, Dr. med.

Curriculum Vitae

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Education

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| Sep 2022 – Ongoing | PhD in neuroscience <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">• Project: Multilevel brain systems underlying typical and atypical neurodevelopment• Supervision: Juergen Dukart Simon Eickhoff Julian Koenig Svenja Caspers• Collaborations:<ul style="list-style-type: none">– Biological Child and Adolescent Psychiatry, University Hospital Cologne (J. Koenig)– Max Planck Institute of Psychiatry, Munich (E. Binder V. Spormaker) |
| Dec 2017 – Sep 2022 | Doctor of medicine <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">• Project: Longitudinal development of resting-state fMRI alterations in Anorexia nervosa• Supervision: Kerstin Konrad Juergen Dukart Jochen Seitz• Grade: <i>summa cum laude</i> |
| Oct 2014 – Nov 2021 | Medical studies <i>RWTH Aachen University, Germany</i> <ul style="list-style-type: none">• 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

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| Sep 2023 – Ongoing | Research associate <i>Institute of Systems Neuroscience, University Hospital Duesseldorf, Germany</i> <ul style="list-style-type: none">• 100% ("postdoctoral") contract financed via Max Planck School of Cognition |
| Apr 2022 – Aug 2022 | Research assistant <i>INM-7: Brain and Behaviour, Research Center Juelich, Germany</i> <ul style="list-style-type: none">• Project: Linking cortical thickness development to multilevel brain systems |
| May 2019 – Jan 2022 | Student research assistant <i>Child Neuropsychology, University Hospital RWTH Aachen, Germany</i> <ul style="list-style-type: none">• Diverse projects involving neuroimaging, behavioral data analysis, and visualization |
| Sep 2013 – Aug 2014 | Voluntary service <i>Samuha Samarthya, India</i> <i>Service Civil International, Germany</i> <ul style="list-style-type: none">• Program: <i>weltwärts</i>, German government-funded• Project: Creating barrier-free environments for people with disabilities in rural South India |

Academic Contributions, Skills, and Personal Interests

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| 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 | <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 | Python since 2021 (<i>example</i>) R since 2020 Matlab since 2019 (<i>example</i>) |
| 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

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| Preprint | Lotter, L. D. and Dukart, J. “Methodological considerations: Integrating measures across assessment modalities (book chapter)”. In: <i>OSF Preprints</i> . Saberi, A., Wischnewski, K. J., Jung, K., Lotter, L. D., 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> . |
| 2024 | Lotter, L. D., 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> . Lotter, L. D., 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> . 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: <i>Biological Psychiatry: Cognitive Neuroscience and Neuroimaging</i> . |
| 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: <i>European Eating Disorders Review</i> . Cornille, 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: <i>eLife</i> . 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: <i>Neuroscience and Biobehavioral Reviews</i> . |
| 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: <i>Biological Psychiatry: Cognitive Neuroscience and Neuroimaging</i> . |
| 2020 | Pankert, K., Pankert, A., Lotter, L. D., Herpertz-Dahlmann, B., and Konrad, K. “Autism spectrum symptoms in children with congenital blindness”. In: <i>Zeitschrift für Kinder- und Jugendpsychiatrie und Psychotherapie</i> . |

* Equal contributions

Conferences and Workshops

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| Aug 2024 | Cologne Summer School in Biological Psychiatry Cologne, Germany <ul style="list-style-type: none">• Poster: Evidence of dopaminergic modulation of resting state functional connectivity alterations in psychosis |
| Jul 2024 | Organization for Human Brain Mapping (OHBM) Annual Meeting Seoul, South Korea <ul style="list-style-type: none">• Poster: NiSpace – Neuroimaging Spatial Colocalization Environment• Poster: Neurotransmitter systems explain lifespan changes of human resting-state brain activity |
| Jul 2023 | Organization for Human Brain Mapping (OHBM) Annual Meeting Montréal, Canada <ul style="list-style-type: none">• 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 <ul style="list-style-type: none">• 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 <ul style="list-style-type: none">• Poster: Linking cortical thickness development to molecular and cellular brain systems |

Awards and Scholarships

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| Oct 2023 | "Borchers Badge" for excellent dissertations at RWTH Aachen University <ul style="list-style-type: none">• 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 <ul style="list-style-type: none">• To present a poster at OHBM 2023 in Montréal, Canada |
| Jun 2023 | 72nd Lindau Nobel Laureate Meeting (Physiology and Medicine) Lindau, Germany <ul style="list-style-type: none">• Participation as "Young Scientist", supported by Research Centre Juelich |