

Stanford



Lisa Bruckert

Postdoctoral Research Fellow, Neonatal and Developmental Medicine

Bio

BIO

Lisa Bruckert is a postdoctoral fellow in the Division of Developmental-Behavioral Pediatrics at Stanford School of Medicine. She works at the intersection of experimental and medical science, bridging neuroscience and pediatrics to understand child development and health. Specifically, her current research with Dr. Heidi Feldman and Dr. Katherine Travis uses different neuroimaging techniques to examine how brain maturation promotes cognitive development in infants and young children, both in healthy and at-risk populations. Dr. Bruckert completed her PhD in Experimental Psychology at the University of Oxford in 2017 under the mentorship of Dr. Kate Watkins and Dr. Dorothy Bishop. Her doctoral work focused on language-related asymmetries in brain structure and function, and their behavioral relevance in children and adults with developmental language disorders. She received a B.S. in Psychology and an M.S. in Cognitive Neuroscience from the Otto-von-Guericke University Magdeburg (Germany).

INSTITUTE AFFILIATIONS

- Member, Maternal & Child Health Research Institute (MCHRI)

HONORS AND AWARDS

- Predicting Long-Term Neurodevelopmental Outcomes in Infants Born Preterm from Diffusion MRI Measures, Stanford Maternal & Child Health Research Institute (MCHRI) (2020)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, Association for Women in Science (AWIS) (2019 - present)
- Member, Society for the Neurobiology of Language (SNL) (2014 - present)
- Member, Organization for Human Brain Mapping (OHBM) (2014 - present)
- Member, Society for Neuroscience (SfN) (2015 - 2016)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Oxford (2017)
- Master of Science, Otto von Guericke University Magdeburg , Cognitive Neuroscience (2012)
- Bachelor of Science, Otto von Guericke University Magdeburg , Psychology (2009)

LINKS

- My ResearchGate Profile: https://www.researchgate.net/profile/Lisa_Bruckert

Research & Scholarship

RESEARCH INTERESTS

- Brain and Learning Sciences
- Child Development
- Early Childhood
- Literacy and Language
- Research Methods

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Cerebellar Circuitry in Development, Learning, and Clinical Conditions: The structure and functional properties of cerebellar white matter has not been well characterized in children at different ages. While many recent studies document the importance of cerebral white matter circuitry in human development and learning, it remains unclear how circuits that connect cerebellum to the rest of the brain change with age, experience, and disease. I am interested in examining the white matter circuitry of the human cerebellum in normal development and in relation to healthy and disordered cognitive functioning. More generally, I am excited about using different functional and structural neuroimaging techniques to investigate brain plasticity in typically developing children and in pediatric populations.

LAB AFFILIATIONS

- Heidi Feldman, Developmental-Behavioral Pediatrics (7/1/2016)

Publications

PUBLICATIONS

- **Associations of Reading Efficiency with White Matter Properties of the Cerebellar Peduncles in Children.** *Cerebellum (London, England)*
Bruckert, L., Travis, K. E., Mezer, A. A., Ben-Shachar, M., Feldman, H. M.
2020
- **Neonatal white matter tract microstructure and 2-year language outcomes after preterm birth.** *NeuroImage. Clinical*
Dubner, S. E., Rose, J., Bruckert, L., Feldman, H. M., Travis, K. E.
2020; 28: 102446
- **Posterior fossa syndrome and increased mean diffusivity in the olivary bodies.** *Journal of neurosurgery. Pediatrics*
Yecies, D., Jabarkheel, R., Han, M., Kim, Y., Bruckert, L., Shpanskaya, K., Perez, A., Edwards, M. S., Grant, G. A., Yeom, K. W.
2019: 1–6
- **Age-Dependent White Matter Characteristics of the Cerebellar Peduncles from Infancy Through Adolescence** *CEREBELLUM*
Bruckert, L., Shpanskaya, K., McKenna, E. S., Borchers, L. R., Yablonski, M., Blecher, T., Ben-Shachar, M., Travis, K. E., Feldman, H. M., Yeom, K. W.
2019; 18 (3): 372–87
- **White Matter Plasticity in Reading-Related Pathways Differs in Children Born Preterm and at Term: A Longitudinal Analysis** *FRONTIERS IN HUMAN NEUROSCIENCE*
Bruckert, L., Borchers, L. R., Dodson, C. K., Marchman, V. A., Travis, K. E., Ben-Shachar, M., Feldman, H. M.
2019; 13
- **Predicting text reading skills at age 8 years in children born preterm and at term** *EARLY HUMAN DEVELOPMENT*
Borchers, L. R., Bruckert, L., Travis, K. E., Dodson, C. K., Loe, I. M., Marchman, V. A., Feldman, H. M.
2019; 130: 80–86
- **Arterial spin labeling perfusion changes of the frontal lobes in children with posterior fossa syndrome.** *Journal of neurosurgery. Pediatrics*
Yecies, D., Shpanskaya, K., Jabarkheel, R., Maleki, M., Bruckert, L., Cheshier, S. H., Hong, D., Edwards, M. S., Grant, G. A., Yeom, K. W.
2019: 1–7
- **Stereotactic laser ablation for completion corpus callosotomy.** *Journal of neurosurgery. Pediatrics*

Huang, Y., Yecies, D., Bruckert, L., Parker, J. J., Ho, A. L., Kim, L. H., Fornoff, L., Wintermark, M., Porter, B., Yeom, K. W., Halpern, C. H., Grant, G. A.
2019: 1–9

- **Microstructural properties of white matter pathways in relation to subsequent reading abilities in children: a longitudinal analysis.** *Brain structure & function*

Borchers, L. R., Bruckert, L., Dodson, C. K., Travis, K. E., Marchman, V. A., Ben-Shachar, M., Feldman, H. M.
2018

- **Long-term Supratentorial Radiological Effects of Surgery and Local Radiation in Children with Infratentorial Ependymoma.** *World neurosurgery*

Yecies, D., Azad, T. D., Esparza, R., Quon, J., Forkert, N., MacEachern, S. J., Bruckert, L., Maleki, M., Edwards, M., Grant, G., Yeom, K.
2018

- **Framework for shape analysis of white matter fiber bundles** *NEUROIMAGE*

Glozman, T., Bruckert, L., Pestilli, F., Yecies, D. W., Guibas, L. J., Yeom, K. W.
2018; 167: 466–77