

Larissa Kraus, PhD.

Education

03/2015-04/2020	PhD, Department of experimental neurology, Charité Universitätsmedizin, Berlin, Germany (Grade: <i>magna cum laude</i>)
04/2013- 02/2015	Master of Science in Biology (Grade: 1.3; <i>highest 1.0, lowest 5.0</i>), Ruhr-University Bochum, Germany
10/2009- 03/2013	Bachelor of Science in Biology (Grade: 2.6; <i>highest 1.0, lowest 5.0</i>), Ruhr-University Bochum, Germany

Employment

08/2020-	Postdoctoral fellow, Department of cellular and physiological sciences, University of British Columbia, Vancouver; PI: Prof. Mark Cembrowski, PhD
03/2015-04/2020	PhD, Department of experimental neurology, Charité Universitätsmedizin, Berlin, Germany; supervisor: PD Dr. Pawel Fidzinski

Lab Skills

- Preparation of acute human slices and human slice cultures
- Electrophysiology in acute and cultured human slices, HEK cells and mouse brain slices (field recordings, patch-clamp, calcium imaging)
- Multiplexed fluorescent *in-situ* hybridization and immunohistochemistry
- Programming (R and basic Matlab)
- Transcriptomic methods (Visium, single cell RNA sequencing)
- Molecular biology (Cloning techniques, PCR, DNA preparation, viral preparation)
- Project management (Organizational, administrative and legal duties of laboratory work and animal experiments)

Further education

2020	Data science specialization (Coursera course by John Hopkins University)
2017	Basic MATLAB course
2014	Handling experimental animals (category FELASA C)

Publications

1. Schneidereit D, **Kraus L**, Meier JC, Friedrich O, Gilbert DF. Step-by-step guide to building an inexpensive 3D printed motorized positioning stage for automated high-content screening microscopy. *Biosens Bioelectron* (2017). doi:10.1016/J.BIOS.2016.10.078
2. Le Duigou C, Savary E, Morin-Brureau M, Gomez-Dominguez D, Sobczyk A, Chali F, Milior G, **Kraus L**, Meier JC, Kullmann DM, et al. Imaging pathological activities of human brain tissue in organotypic culture. *J Neurosci Methods* (2018). doi:10.1016/j.jneumeth.2018.02.001
3. Agostinho AS, Mietzsch M, Zangrandi L, Kmiec I, Mutti A, **Kraus L**, Fidzinski P, Schneider UC, Holtkamp M, Heilbronn R, et al. Dynorphin-based “release on demand” gene therapy for drug-resistant temporal lobe epilepsy. *EMBO Mol Med* (2019). doi:10.15252/emmm.201809963
4. **Kraus L**, Hetsch F, Schneider UC, Radbruch H, Holtkamp M, Meier JC, Fidzinski P. Dimethylethanolamine Decreases Epileptiform Activity in Acute Human Hippocampal Slices in vitro. *Front Mol Neurosci* (2019). doi:10.3389/fnmol.2019.00209
5. Jurek B, Chayka M, Kreye J, Lang K, **Kraus L**, Fidzinski P, Kornau H, Dao L, Wenke NK, Long M, et al. Human gestational N-methyl-d-aspartate receptor autoantibodies impair neonatal murine brain function. *Ann Neurol* (2019). doi:10.1002/ana.25552
6. Böttcher C, Schlickeiser S, Sneeboer MAM, Kunkel D, Knop A, Paza E, Fidzinski P, **Kraus L**, Snijders GJL, Kahn RS, et al. Human microglia regional heterogeneity and phenotypes determined by multiplexed single-cell mass cytometry. *Nat Neurosci* (2019). doi:10.1038/s41593-018-0290-2
7. **Kraus L**, Monni L, Schneider UC, Onken J, Spindler P, Holtkamp M, Fidzinski P. Preparation of Acute Human Hippocampal Slices for Electrophysiological Recordings. *J Vis Exp* (2020). doi:10.3791/61085
8. Monni L, **Kraus L**, Dipper-Wawra M, Soares-da-Silva P, Maier N, Schmitz D, Holtkamp M, Fidzinski P. In vitro and in vivo anti-epileptic efficacy of eslicarbazepine acetate in a mouse model of KCNQ2-related self-limited epilepsy. *Br J Pharmacol* (2022). doi:10.1111/BPH.15689
9. Göttert R, Fidzinski P, **Kraus L**, Schneider UC, Holtkamp M, Endres M, Gertz K, Kronenberg G. Lithium inhibits tryptophan catabolism via the inflammation-induced kynurenine pathway in human microglia. *Glia* (2022). doi:10.1002/GLIA.24123

Lab visits

11/2016	<i>Human organotypic slice cultures</i> Prof. Richard Miles, ICM Paris, France
08/2016	<i>Whole-cell Patch-Clamp recordings in HEK293T cells</i> Prof. Jochen Meier, TU Braunschweig, Germany
01/2016- 03/2016	<i>High-throughput screening in HEK293T cells</i> Dr. Daniel Gilbert, University Erlangen, Germany

Teaching Experience

10/2021-04/2022	REX Mentorship Program for undergrad students, UBC Vancouver
05/2019	Seminar experimental epileptology, Master students medical neuroscience program, Charité Universitätsmedizin, Berlin, Germany
07/2018	Symposium 'Electrophysiology for non-specialists', 2 nd human brain project curriculum workshop, Berlin, Germany
10/2012- 02/2013	Student assistant dissection course of 1 st semester bachelor students Ruhr-University Bochum, Germany

Languages

German (native)

English (fluent)

Dutch (fluent speaking, basic reading and writing)