Kseniia Sarieva

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TRAINING

11.2019 – 05.2023 **Universität Tübingen, Germany**
Ph.D. Student, Graduate Training Centre of Cellular and Molecular Neuroscience, International Max Planck Research School for Mental Function and Dysfunction, Hertie Institute for Clinical Brain Research.

10.2017 – 10.2019 **Universität Tübingen, Germany**
M.Sc., Graduate Center of Cellular and Molecular Neuroscience, International Max-Plank Research School.
GPA: 1.2/1.0

09.2013 – 07.2017 **St. Petersburg State University, Russian Federation**
B.Sc., Faculty of Biology, Department of Biochemistry.
GPA: 4.9/5.0.

PRACTICAL EXPERIENCE

11.2019 – 11.2023 **Single-cell RNA sequencing in human brain organoid models to study environmental and genetic perturbations in brain development**
Hertie Institute for Clinical Brain Research, Independent Research Group "Molecular Brain Development". Tübingen, Germany.
- Established region-specific brain organoids in the lab;
- Used bulk and single-cell RNA sequencing to analyze cell type-specific effects of adverse environmental exposures (10x Genomics, Seurat, DeSeq2, Slingshot, SCENIC).

04.2019 – 10.2019 **Cell cycle synchronization of induced pluripotent stem cells as a method to increase reproducibility of cerebral organoids protocol**
German Center for Neurodegenerative Diseases. Tübingen, Germany.
- Developed protocol for cell cycle synchronization;
- Used R-based tools for flow cytometry and qRT-PCR data analysis.

12.2018 – 03.2019 **Alterations in lipid rafts-associated signaling in cortical neurons derived from SPG5 patients**
German Center for Neurodegenerative Diseases. Tübingen, Germany.

09.2018 – 11.2018 **Super-resolution STED imaging in the mouse retina**
Center for Integrative Neuroscience/Institute for Ophthalmic Research. Tübingen, Germany.
- Developed a strategy for super-resolution imaging in thick specimen;
- Applied R for modeling and statistical analysis of image resolution.

10.2015 – 07.2018 **Biochemical mechanisms of brain hypoxic damage on prenatal stage and in adult rats. Mechanisms of antiapoptotic and antioxidative action of hypoxic postconditioning**
Pavlov Institute of Physiology RAS. St. Peterburg, Russian Federation.

AWARDS AND LEADERSHIP

11.2022	**Awarded Add-on Fellowship for Interdisciplinary Life Science from JHF** for young scientists fostering interdisciplinary skills (47 fellowships awarded). Hamburg, Germany.
05.2022 – 09.2022	**Supervised BSc student** – Felix Hildebrand's BSc thesis
03.2022 – 05.2022	**Supervised MSc student** – Ezgi Atay's laboratory rotation
02.2022	**Tutored** in the practical course in confocal microscopy for doctoral students as a part of curriculum for Molecular Medicine (individual training sessions for 6 participants).
10.2021 – 02.2022	**Co-organized Journal Club for Neurodevelopment** with invited speakers for 15 doctoral students as a part of curriculum for Graduate Center of Cellular and Molecular Neuroscience.
09.2021 – 11.2021	**Supervised MSc student** – Sarah Hornfeck's laboratory rotation
11.2020	**Awarded travel grant** for attendance of the CAJAL Advanced Neuroscience Training Programme "Single cell profiling and analysis in neuroscience" training course, Bordeaux, France. Due to coronavirus pandemic took place online (3 out 15 participants).
04.2020 – 06.2022	**Awarded research fellowship** - Baden-Wuerttemberg State Postgraduate Fellowship Programme (Landesgraduiertenförderung). Tübingen, Germany.
03.2020 – 09.2020	**Co-supervised MSc student** – Clemens Lumper's MSc thesis
10.2017 – 12.2018	**Awarded Master's degree fellowship** for excellent international students from Hertie Foundation (3 out of 16 peer students). Tübingen, Germany
09.2015 – 07.2017	**Awarded academic scholarship** for outstanding achievements in study from St. Petersburg State University (30 scholarships are awarded per semester for 500 students of BSc and MSc of Biology). St. Petersburg, Russian Federation

OTHER SKILLS

Programming tools	R – confident user; Python – intermediate; Linux/shell – basic; Git – basic.
Languages	English – full working proficiency; German – limited working proficiency; Russian – native; Ukrainian – intermediate.

INTERESTS

Science communication	**Volunteer lecturer for Cell Biology** – Lecture series for highly talented high school students as a part of preparation for country-wide contests in Biology, Saint-Petersburg, Russia (06.2016). **Student volunteer for Biology** – Organization of regional and country-wide contests in Biology for highly talented high school students, Saint-Petersburg, Russia (10.2013 – 05.2016).
Volunteer work	Volunteer for Ukrainian refugees of war – translation on the meetings with officials, fundraising, work with local charity organizations, Tübingen, Germany (03.2022 – present).

PUBLICATION LIST

Sarieva, K., Kagermeier, T., Khakipoor, S., Atay, E., Yentür, Z., Becker, K., Mayer, S. Human brain organoid model of maternal immune activation identifies radial glia cells as selectively vulnerable. Molecular Psychiatry. (2023), P. 1-13.

Kremers, L.*, **Sarieva, K.***, Hoffmann, F., Ueffing, M., Euler, T., Nikic-Spiegel, I., Schubert, T. Super-resolution STED imaging in the inner and outer whole-mount mouse retina. *Accepted for publication*.

Kagermeier, T., Hauser, S., **Sarieva, K.**, Laugwitz, L., Groeschel, S., Janzarik, W., Yentuer, Z., Becker, K., Schoels, L., Kraegeloh-Mann, I., Mayer, S. Human organoid model of PCH2a recapitulates brain region-specific pathology. *Preprint*.

Sarieva, K., Mayer, S. The effects of environmental adversities on human neocortical neurogenesis modeled in brain organoids. Frontiers in Molecular Biosciences. No. 8 (2021), P. 586.

Vetrovoy, O., **Sarieva, K.**, Lomert, E., Nimiritsky, P., Eschenko, N., Galkina, O., Lyanguzov, A., Tyulkova, E. and Rybnikova, E. Pharmacological HIF1 Inhibition Eliminates Downregulation of the Pentose Phosphate Pathway and Prevents Neuronal Apoptosis in Rat Hippocampus Caused by Severe Hypoxia. Journal of Molecular Neuroscience. V. 70, No. 5 (2019), P. 635-646.

O. Vetrovoy, **K. Sarieva**, O. Galkina, N. Eschenko, A. Lyanguzov, T. Gluschnko, E. Tyulkova, E. Rybnikova. Neuroprotective Mechanism of Hypoxic Post-Conditioning Involves HIF1-Associated Regulation of the Pentose Phosphate Pathway in Rat Brain. Neurochemical Research. V. 38, No. 9 (2018), P. 1-12.

K. V. Sarieva, A. Y. Lyanguzov, I. I. Zorina, O. V. Galkina, O. V. Vetrovoy. The effect of severe hypoxia and hypoxic postconditioning on glutathione-dependent antioxidant system of rat brain. Neurochemical Journal. No. 3 (2018), P. 248–255.

O. Vetrovoy, E. Tulkova, **K. Sarieva**, M. Zenko, E. Rybnikova. Neuroprotective effect of hypobaric hypoxic postconditioning is accompanied by DNA protection and lipid peroxidation changes in rat hippocampus. Neuroscience Letters. No. 639 (2017), P. 49-52.

E. I. Tyulkova, O. V. Vetrovoy, **K. V. Sarieva**, L. A. Vataeva and T. S. Glushchenko. The Characteristics of Acetylation of Histone H3 at Lys24 in the Hippocampus and Neocortex of Rats That Were Exposed to Hypoxic Stress at Different Stages of Prenatal Development. Neurochemical Journal. V. 11 No. 4 (2017), P. 309–314.