

Kseniia Prokofeva, MD, PhD

Behavioral neuroscientist

Yokohama, Kanagawa, Japan

Website: k-prokofeva.github.io

Email: prokofieva.ksenia.int@gmail.com

X (Twitter): [@ks_prokofeva](https://twitter.com/ks_prokofeva)

Education

2019 – 2023

Doctor of Philosophy in Biomedical Sciences

University of Tsukuba, International Institute for Integrative Sleep Medicine, Japan

Thesis: Regulation of wakefulness and sleep by neuronal circuits linking ventrolateral preoptic nucleus and lateral hypothalamic area

Advisors: Takeshi Sakurai, MD, PhD, and Arisa Hirano, PhD

2013 – 2019

Doctor of Medicine

Novosibirsk State Medical University, Faculty of Pediatrics, Russian Federation

Academic Appointments

2023 – Pres

Assistant Professor

Institute of Science Tokyo, School of Life Science and Technology, Laboratory of Kumi O Kuroda, MD, PhD

Research Grants

2025 – 2028

JSPS KAKENHI Grant-in-Aid for Early-Career Scientists, PI, Project No. 25K18581, Institute of Science Tokyo, ¥4.68M

Academic Publications

* indicates co-first authors; † indicates corresponding authors

Prokofeva K*†, Shibamiya M*, Kawata R, Yoshihara C, Kuroda KO†. (2025) Neural correlates of adversity-overcoming pup rescue behavior in female mice. *Research Square* (Preprint). [doi: 10.21203/rs.3.rs-7240012/v1](https://doi.org/10.21203/rs.3.rs-7240012/v1)

Prokofeva K, Saito YC, Niwa Y, Mizuno S, Takahashi S, Hirano A†, Sakurai T†. (2023) Structure and Function of Neuronal Circuits Linking Ventrolateral Preoptic Nucleus and Lateral Hypothalamic Area. *J Neurosci*. 43(22):4075-4092. [doi: 10.1523/JNEUROSCI.1913-22.2023](https://doi.org/10.1523/JNEUROSCI.1913-22.2023)

Conference Presentations

Oral Presentations

Prokofeva K, Shibamiya M, Kawata R, Yoshihara C, Kuroda KO. Neural correlates of adversity-overcoming pup rescue in female virgin mice. *The 48th Annual Meeting of the Japanese Society for Behavioral Neuroendocrinology* (August 2025). Kyoto, Japan

Prokofeva K, Shibamiya M, Kawata R, Yoshihara C, Kuroda KO. A Scalable paradigm for investigating pup rescue behavior under adversity in female mice. *The 48th Annual Meeting of the Japan Neuroscience Society* (July 2025). Niigata, Japan

Prokofeva K, Saito YC, Hirano A, Sakurai T. Delineation of Neural Circuits of Galaninergic Neurons in the VLPO Implicated in Regulation of Sleep. *The 45th Annual Meeting of the Japan Neuroscience Society* (June 2022). Ginowan, Japan

Prokofeva K, Saito YC, Hirano A, Sakurai T. Mapping of presynaptic partners of the sleep-implicated preoptic – lateral hypothalamic circuit. *Tsukuba Conference 2021* (September 2021). Tsukuba, Japan (online)

Prokofeva K, Saito YC, Hirano A, Sakurai T. Mapping of sleep/wake-governing circuits of orexin-producing neurons. *The 44th Annual Meeting of the Japan Neuroscience Society and The 1st China-Japan-Korea International Meeting* (July 2021). Kobe, Japan

Poster Presentations

Prokofeva K, Saito YC, Niwa Y, Mizuno S, Takahashi S, Hirano A, Sakurai T. A whole-brain input landscape of the GABA- and galaninergic neurons in the ventrolateral preoptic nucleus projecting to the lateral hypothalamus. *The Annual Meeting of Society for Neuroscience* (November 2022). San-Diego, USA

Teaching Experience

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| 2025 – Pres | Graduate Course Instructor, Functional Life Science (機能生命科学), Institute of Science Tokyo |
| 2023 – Pres | Undergraduate Course Instructor, LST Basic Laboratory and Exercise III (生命理工学基礎実験・演習第三), Institute of Science Tokyo |
| 2021 | Graduate Teaching Assistant, Summer Research Program 2021, University of Tsukuba |

Mentoring Experience

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| 2025 – Pres | Master's students (3 students), Institute of Science Tokyo. Role: Co-advisor |
| 2023 – Pres | Undergraduate students (4 students), Institute of Science Tokyo. Role: Sub-supervisor |

Professional Service

Reviewer for international journals:
Scientific Reports, Nature Neuroscience

Outreach and Public Engagement

- Member, Women in Science Japan (WISJ) (2025 – Pres)
- Mentor, WISJ High School Outreach Initiative (2025)
- Organizing committee member, WISJ Flagship Event 2025

Skills

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| Research skills | <ul style="list-style-type: none">▪ Neuronal activity recording and manipulation: fiber photometry, chemogenetics, optogenetics▪ Neuroanatomy: neural circuit tracing, immunohistochemistry, <i>in situ</i> hybridization)▪ Behavioral analysis: DeepLabCut-based tracking▪ Data analysis and statistics: R |
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| Languages | Russian (native), English, Japanese |
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