

# Kseniia Prokofeva, MD, PhD

Behavioral neuroscientist

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## Education

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- 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

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- 2023 – Pres      **Assistant Professor**  
**Institute of Science Tokyo**, School of Life Science and Technology, Laboratory of Kumi O Kuroda, MD, PhD

## Research Grants

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- 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

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**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

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### 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

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Reviewer for international journals:  
Scientific Reports, Nature Neuroscience

#### Outreach and Public Engagement

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- 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"><li>▪ <b>Neuronal activity recording and manipulation:</b> fiber photometry, chemogenetics, optogenetics</li><li>▪ <b>Neuroanatomy:</b> neural circuit tracing, immunohistochemistry, <i>in situ</i> hybridization)</li><li>▪ <b>Behavioral analysis:</b> DeepLabCut-based tracking</li><li>▪ <b>Data analysis and statistics:</b> R</li></ul>
Languages	Russian (native), English, Japanese