R E S U M E

February 2026

PERSONAL DETAILS

Full Name: Inbal Shainer
ORCID ID: https://orcid.org/0000-0001-5487-8925
Google scholar: https://scholar.google.com/citations?user=zQFpcE8AAAAJ
Web Site: https://shainer-lab.net.technion.ac.il/

ACADEMIC DEGREES AND TRAINING

2019-2024 **Postdoctoral Fellow**, Max Planck Institute for Biological Intelligence, Munich, Germany. Advisor: Prof. Herwig Baier

2012-2018 **Ph.D.** Faculty of Life Sciences, Department of Neurobiology, Tel-Aviv University, Israel. Advisor: Prof. Yoav Gothilf

2009-2011 **M.Sc.**, *magna cum laude,* Faculty of Life Sciences, Department of Neurobiology, Tel-Aviv University, Israel. Advisor: Prof. Yoav Gothilf

2006-2009 **B.Sc.** Faculty of Life Sciences, Tel-Aviv University, Israel

ACADEMIC APPOINTMENTS

2024-Current **Assistant professor**, Faculty of Biology, Technion – Israel Institute of Technology, Israel

2023-2024 **Senior Intern**, Department of Brain Sciences, Weizmann Institute of Science.

2022 **Visiting Scientist**, Department of Brain Sciences, Weizmann Institute of Science.

2017 **Visiting Scientist**, Division of Developmental Biology, NICHD, NIH.

2015 **Visiting Scientist**, Faculty of Life Sciences, University College of London.

TEACHING

2026-current Introduction to Neurobiology, co-main teacher, undergraduate.

2026-current Brain and Behavior, co-main teacher, graduate.

FELLOWSHIPS, AWARDS AND HONORS

2025-2027 **Alon fellowship** – A prestigious scholarship supporting the integration of outstanding faculty, awarded annually by the Israel Council for Higher Education to 25 scholars across all disciplines nationwide.

2023 **Women bridge position** - An independent one-year position at the Weizmann Institute of Science, awarded to candidates from all STEM fields who are between completing their postdoctoral training abroad and obtaining a faculty appointment. Typically, one to two positions are offered each year.

2020-2022 **The Alexander von Humboldt foundation** research fellowship for postdoctoral researchers.

RESEARCH GRANTS

2025-2030 **Personal research grant** - Israel Science Foundation

2025 **New faculty research grant** - Israel Science Foundation

PUBLICATIONS

1. **Shainer I***, Kappel JM*, Laurell E, Al Kassar M, Schneider M, Kuehn E, Arnold-Ammer I, Stemmer M, Larsch J, Baier H. Transcriptomic neuron types vary topographically in function and morphology. *Nature. 638, 1023–1033* 2025 https://doi.org/10.1038/s41586-024-08518-2 *Co-first author.
2. Kawashima T, Wei Z, Haruvi R, **Shainer I**, Narayan S, Baier H, Ahrens MB. Voltage imaging reveals circuit computations in the raphe underlying serotonin-mediated motor vigor learning. *Neuron.* 2025 https://doi.org/10.1016/j.neuron.2025.05.017
3. Haruvi R, Barbara R, **Shainer I**, Rosenberg AM, Moshe L, Malamud D, Toledano J, Braun D, Baier H, Kawashima T. Global and compartmentalized serotonergic control of sensorimotor integration underlying motor adaptation. *BioRxiv.* 2024:2024-09. https://doi.org/10.1101/2024.09.15.613094
4. Wulliman M, Mokayes N, **Shainer I**, Kuehn E, Baier H. Genoarchitectonics of the larval zebrafish diencephalon. *J. Comp. Neurol.* 2024, 532 (3), e25549 https://doi.org/10.1002/cne.25549
5. Elazary Y, Cheow K, Cheng RK, Ghosh R, **Shainer I**, Wexler Y, Crasta K, Gothilf Y, Jesuthasan SJ. Glial cells expressing visual cycle genes are vital for photoreceptor survival in the zebrafish pineal gland. Journal of Pineal Research. 2023 Apr;74(3):e12854. https://doi.org/10.1111/jpi.12854
6. **Shainer I***, Kuehn E*, Laurell E, Al Kassar M, Mokayes N, Sherman S, Larsch J, Kunst M, Baier H. A single-cell resolution gene expression atlas of the larval zebrafish brain. *Science Advances* 9, no. 8 (2023): eade9909. https://doi.org/10.1126/sciadv.ade9909 *Co-first author.
7. Shainer R, Kram V, Kilts TM, Li L, Doyle AD, **Shainer I**, Martin D, Simon Jr CG, Zeng-Brouwers J, Schaefer L, Young MF. Biglycan regulates bone development and regeneration. Frontiers in Physiology. 2023 Feb 16;14:194. https://doi.org/10.3389/fphys.2023.1119368
8. Kappel JM, Förster D, Slangewal K, **Shainer I**, Svara F, Donovan JC, Sherman S, Januszewski M, Baier H, Larsch J. Visual recognition of social signals by a tectothalamic neural circuit. *Nature*. 2022 Jul 13:1-7. https://doi.org/10.1038/s41586-022-04925-5
9. **Shainer I**, Stemmer M. Choice of pre-processing pipeline influences clustering quality of scRNA-seq datasets. *BMC genomics*. 2021 Dec;22(1):1-3. https://doi.org/10.1186/s12864-021-07930-6
10. Zuccarini G, D'Atri I, Cottone E, Mackie K, **Shainer I**, Gothilf Y, Provero P, Bovolin P, Merlo GR. Interference with the cannabinoid receptor CB1R results in miswiring of GnRH3 and AgRP1 axons in zebrafish embryos. *International journal of molecular sciences*. 2019 Dec 25;21(1):168. https://doi.org/10.3390/ijms21010168
11. **Shainer I**, Michel M, Marquart GD, Bhandiwad AA, Zmora N, Livne ZB, Zohar Y, Hazak A, Mazon Y, Förster D, Hollander-Cohen L, Cone RD, Burgess HA, Gothilf Y. Agouti-related protein 2 is a new player in the teleost stress response system. *Current Biology*. 2019 Jun 17;29(12):2009-19. https://doi.org/10.1016/j.cub.2019.05.021
12. Koch L*, **Shainer I***, Gurevich T, Holzman R. The expression of agrp1, a hypothalamic appetite-stimulating neuropeptide, reveals hydrodynamic-induced starvation in a larval fish. *Integrative Organismal Biology*. 2019;1(1):oby003. *Co-first author. https://doi.org/10.1093/iob/oby003

13. **Shainer I**, Buchshtab A, Hawkins TA, Wilson SW, Cone RD, Gothilf Y. Novel hypophysiotropic AgRP2 neurons and pineal cells revealed by BAC transgenesis in zebrafish. *Scientific reports*. 2017 Mar 20;7(1):1-0. https://doi.org/10.1038/srep44777
14. Ben-Moshe Livne Z, Alon S, Vallone D, Bayleyen Y, Tovin A, **Shainer I**, Nisembaum LG, Aviram I, Smadja-Storz S, Fuentes M, Falcon J, Eisenberg E, Klein DC, Burgess HA, Foulkes NS, Gothilf Y. Genetically blocking the zebrafish pineal clock affects circadian behavior. *PLoS genetics*. 2016 Nov 21;12(11):e1006445. https://doi.org/10.1371/journal.pgen.1006445
15. Khandadash R, Machtey V, **Shainer I**, Gottlieb HE, Gothilf Y, Ebenstein Y, Weiss A, Byk G. Novel biocompatible hydrogel nanoparticles: generation and size-tuning of nanoparticles by the formation of micelle templates obtained from thermo-responsive monomers mixtures. *Journal of nanoparticle research*. 2014 Dec;16(12):1-8. https://doi.org/10.1007/s11051-014-2796-1