

## Curriculum Vitae

Name: **Ariel Gilad**

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## Education

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**2008 – 2014:** Ph.D. (direct track) in Neuroscience, Bar-Ilan University, Israel. Advisor: Prof. Hamutal Slovin

**2004 – 2007:** B.Sc. in Life Science and Mathematics, The Hebrew University of Jerusalem, Israel.

## Positions

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**2019 – present:** Assistant Professor, Department of Medical Neurobiology, Faculty of Medicine, Hebrew University of Jerusalem, Israel.

**2018 – 2019:** Marie Skłodowska-Curie fellow, ELSC, The Hebrew University of Jerusalem, Israel. Advisor: Prof. Adi Mizrahi

**2014 – 2018:** Post-doctoral fellow, Brain Research Institution, University of Zurich, Switzerland. Advisor: Prof. Fritjof Helmchen

## Awards, fellowships and funding history

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**2022:** Kavli fellow, Frontiers of Science Symposia of the National Academy of Sciences and Israeli Science Academy

**2022:** European Research Council (ERC) starting grant.

**2022:** National Science Foundation – Binational Science Foundation – National Institute of Health (NSF-BSF-NIH) Computational Neuroscience Research Grant (CRCNS; co-awarded with Prof. Mark Reimers)

**2022:** Autism Research Program (ARP) Career Development Award. US Department of Defense office of the Congressionally Directed Medical Research Programs (CDMRP)

**2022:** Einstein Foundation Research Project grant (co-awarded with Prof. Matthew Larkum)

**2021:** University of Bonn – The Hebrew University of Jerusalem Collaborative Research Grant (co-awarded with Prof. Heinz Beck and Dr. Jan Gründemann).

**2021:** Brain and Behavior Research Foundation (BBRF) Young Investigator Grants (NARSAD)

**2021:** Prusiner-Abramsky Research Award

**2021:** CIDR joint research grant (co-awarded with Dr. Oren Forkosh)

**2020:** Bi-national Science Foundation (BSF) starting grant (co-awarded with Prof. Mark Reimers).

**2020:** University of Geneva – The Hebrew University of Jerusalem joint seed money funding scheme (co-awarded with Prof. Anthony Holtmaat).

**2016-2019:** Marie Skłodowska-Curie Individual Fellowship – Global fellowship.

**2015-2016:** EMBO long-term postdoctoral fellowship.

**2014-2015:** ELSC Postdoctoral Fellowship.

**2013:** Aharon Katzir Student Travel Fellowship.

**2013:** NIPi Travel Fellowship.

**2013:** ‘President’ Travel Fellowship, Bar Ilan University.

**2012-2013:** I-CORE Scholarship for honor graduate students.

**2011:** Rector Prize, Bar Ilan University.

**2009:** ‘President’ Travel Fellowship, Bar Ilan University.

**2009 – 2013:** ‘President’ Scholarship, Bar Ilan University.

**2006:** Summer Scholarship, The Hebrew University of Jerusalem.

## List of publications

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- Abdefattah, A. S., ... **Gilad, A.**, ... Zhao, Y. (2022). Neurophotonic tools for microscopic measurements and manipulation: status report. *Neurophotonics*, 9(S1).
- Gallero-Salas, Y., Laurenczy, B., Voigt, F., **Gilad, A.\***, and Helmchen, F.\* Sensory and Behavioral Components of Neocortical Signal Flow in Discrimination Tasks with Short-term Memory (2021). \* - **co-supervision**. *Neuron*. 109, 1–14
- Gilad, A.**, Maor, I., & Mizrahi, A. (2020). Learning-related population dynamics in the auditory thalamus. *ELife*, 9, 1–18.
- Gilad, A.**, & Helmchen, F. (2020). Spatiotemporal refinement of signal flow through association cortex during learning. *Nature Communications*, 11(1), 1–14.
- Gilad, A.**, Gallero-Salas, Y., Groos, D., and Helmchen, F., (2018). Behavioral strategy determines frontal or posterior location of short-term memory in neocortex. *Neuron* 99, 814–828.e7.
- Helmchen, F., **Gilad, A.**, and Chen, J.L. (2018). Neocortical dynamics during whisker-based sensory discrimination in head-restrained mice. *Neuroscience* 368, 57–69.
- Gilad, A.**, Oz, R., and Slovin, H. (2017). Uncovering the Spatial Profile of Contour Integration from Fixational Saccades: Evidence for Widespread Processing in V1. *Cerebral Cortex* 27, 5261–5273.
- Gilad, A.**, and Slovin, H. (2015). Population responses in V1 encode different figures by response amplitude. *Journal of Neuroscience*. 35, 6335–6349.
- Gilad, A.**, Yair, P., Ayzenshtat, I., and Slovin, H. (2014). Figure-ground processing during fixational saccades in V1: indication for higher-order stability. *Journal of Neuroscience*. 34, 3247-3252.
- Gilad, A.**, Meirovithz, E., and Slovin, H. (2013). Population responses to contour integration: early encoding of discrete elements and late perceptual grouping. *Neuron*. 78, 389-402.
- Gilad, A.**, Meirovithz, E., Leshem, A., Arieli, A., and Slovin, H. (2012). Collinear stimuli induce local and cross-areal coherence in the visual cortex of behaving monkeys. *PLoS. One*. 7, e49391.
- Ayzenshtat, I., **Gilad, A.**, Zurawel, G., and Slovin, H. (2012). Population response to natural images in the primary visual cortex encodes local stimulus attributes and perceptual processing. *Journal of Neuroscience*. 32, 13971-13986.
- Gilad, A.**, Klass, K., and Werner, Y.L., (2012). New methods and old pictures illuminate the status of *Acanthodactylus boskianus asper* (Audouin, 1827) (Reptilia: Lacertidae). *North-western journal of zoology*. 8 (1), 154-163.
- Seifan, M., **Gilad, A.**, Klass, K., Werner, Y.L. (2009): Ontogenetically stable dimorphism in a lacertid lizard (*Acanthodactylus boskianus*), with tests of methodology and comments on life-history. *Biological Journal of the Linnean Society*. 97, 275–288.

## Work, supervision and teaching experience

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**2022:** Associate editor for *Neurophotonics Journal*

**2022:** Grant reviewer for the Biotechnology and Biological Sciences Research Council (BBSRC), strategic Longer and Larger (sLoLa) Grants.

**2021 – present:** Committee member of the Israel Science Foundation Annual Meeting

**2021 – present:** Editorial board of *Neurophotonics Journal*

**2021:** Grant reviewer for Biotechnology and Biological Sciences Research Council (BBSRC; 2021); The Research Foundation - Flanders (FWO; 2021).

**2021 – present:** Member of the Biophotonics Congress Program Committee, The Optical Society

**2020:** Organizer and moderator of the Medical Neurobiology Department seminar.

**2020 – present:** Full supervision of one post-doc, four PhD students and two Master students, The Hebrew University of Jerusalem, Israel

**2020 - present:** Dissertation committee of two PhD candidates.

**2020 – present:** Motor system course at Faculty of Medicine. Neural Mechanisms course at Faculty of Medicine.

**2018 – present:** Reviewer for *Nature Methods*, *Nature Protocols*, *eLife*, *Cell reports*, *iScience*, *Brain Research*, *Neurophotonics*, *Communications Biology*.

**2019:** Guest lecturer at Computational Neuroscience in Eilat, Israel.

**2009 – 2014:** Teaching assistant at Bar Ilan University: Biochemistry, Statistics and Calculus.

## Invited talks

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- 2019 - Department Seminar, Faculty of Medicine, Technion, Technion
- 2019 - EBRI-HUJI-McGill symposium in Rome, Hebrew University
- 2020 - ISFN annual meeting, Israel
- 2020 - ELSC annual retreat, ELSC, Hebrew University
- 2020 - OSA Optics and the Brain Symposium. OSA, USA
- 2020 - Department seminar, Weizmann Institute of Science.
- 2020 - SPIE Neurophotonics Mini-Symposium, SPIE, USA
- 2021 - ALM-Prefrontal seminar, Humboldt University, Berlin, Germany
- 2022 - ISFN annual meeting, Israel
- 2022 - Ben-Gurion University Department Seminar, Ben-Gurion University
- 2022 - Special Seminar, Faculty of Medicine, University of Geneva, University of Geneva
- 2022 - HIFO 60-year Jubilee Symposium, University of Zurich
- 2022 - Kavli Frontiers of Science Symposium, Israel Academy of Sciences and Humanities (IASH) and the U.S. National Academy of Sciences (NAS).
- 2022 – IMRIC annual retreat, Hebrew University
- 2022 – Department Seminar, Tel Aviv University Life Science

## Miscellaneous

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**2000 - 2004:** Mandatory army service. Combat officer in the Egoz commando unit. Current rank: captain. Serving as a reserve officer in the Hermon brigade.

Married to Yulia and father to two boys (Amichai and Avinoam)