Aug 2024

TAMAR REGEV – CV

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2020 – cont. – Massachusetts institute of Technology
Postdoctoral Associate. Advisor: Prof. Evelina Fedorenko

2011 – 2020 – The Hebrew University of Jerusalem.
PhD Computational Neuroscience. Advisors: Prof. Leon Y. Deouell, Prof. Israel (Eli) Nelken**.**
Preattentive representations of auditory frequency and their EEG correlates.

2009 – 2011 – Universitat Pompeu Fabra, Barcelona.
M.Sc. Cognitive Systems. Advisor: Prof. Sergi Jorda. *Sonic feedback to movement as learned auditory-proprioceptive sensory integration.*

2005 – 2008 – Tel-Aviv University, Tel-Aviv.
B.Sc. Physics and Biology. SUMMA CUM LAUDE.

HONORS AND AWARDS

2023 – Best abstract award - Psychology and Neuroscience Symposium for Israeli Postdocs.
2022 – current Poitras center fellow.
2020 – 2022 Zuckerman-CHE Israeli Women Postdoctoral Program.
2016 – 2019 The Hoffman Leadership and Responsibility Fellowship Program, HUJI.
2016 Israel Ministry of Science and Technology travel grant for ICMPC conference.
2016 SEMPRE travel award for ICMPC conference.
2014 Best poster**,** Annual conference of Psychology department, HUJI.
2012 ELSC Grant for Student Travel Abroad for ESCOM-ICMPC conference.
2009 UPF Grant for non-EU citizens.
2007 Dean's Certificate in recognition of outstanding academic achievements. School of Physics and Faculty of Life Sciences, Tel-Aviv University.

PUBLICATIONS

Conference papers –

Wolf, L., Tuckute, G., Kotar, K., Hosseini, E., **Regev, T.I.***, Wilcox, E.* & Warstadt, A.* (2023). WhisBERT: Multimodal Text-Audio Language Modeling on 100M Words. babyLM challenge, *arXiv preprint arXiv:2312.02931*. Paper.

Wolf, L., Pimentel T., Fedorenko, E., Cotterell, R., Warstadt, A.*, Wilcox, E.* & **Regev, T.I.*** (2023). Quantifying the redundancy between prosody and linguistic content. EMNLP2023 Paper.

Journal papers –

Regev, T.I.*, Casto C.*, Hosseini E.A., Adamek, M., Ritaccio, A.L, Willie, J.T., Brunner, P., & Fedorenko, E. (2024). Neural populations in the language network differ in the size of their temporal receptive windows. *Nature Human Behaviour* pp. 1-9. Paper | Data and Code

Regev, T.I.*, Lipkin B.*, Boebinger D., Paunov A., Kean, H., Norman-Haignere S.V., & Fedorenko, E. (2024) Preserved functional organization of human auditory cortex in individuals missing one temporal lobe from birth. *iScience*, *27*(9). Paper | Data and Code

Fedorenko, E., Ivanova, A.A. & **Regev. T.I.** (2024) The language network as a natural kind within the broader landscape of the human brain. *Nature Reviews Neuroscience*

Regev, T.I., Kim, H.S., Chen, X., Affourtit, J., Schipper, A. E., Bergen, L., Mahowald, K.*, & Fedorenko, E.* (2024). High-level language brain regions are sensitive to sub-lexical regularities. *Cerebral Cortex*. Paper | Data and Code

Chen, X., Affourtit, J., Ryskin, R., **Regev, T. I.**, Norman-Haignere, S., Jouravlev, O., Malik-Moraleda S., Kean H., Varley R. & Fedorenko, E. (2023). The human language system, including it's inferior frontal component in "Broca's area", does not support music perception. *Cerebral Cortex*. Paper

Regev, T.I., Markusfeld, G., Deouell, L.Y. & Nelken, I. (2021) Context sensitivity across multiple time scales with a flexible frequency bandwidth. *Cerebral Cortex.* Paper | Data and code

Regev, T.I., Nelken, I., Deouell, L.Y. (2019) Evidence for linear but not helical automatic representation of pitch in human auditory system. *Journal of Cognitive Neuroscience.* 1-17. Paper

Regev, T.I., Winawer, J., Gerber, E.M., Knight, R.T., Deouell, L.Y (2018) Human posterior parietal cortex responds to visual stimuli as early as peristriate occipital cortex. *European Journal of Neuroscience*. Paper | Data and code

Wolfenson, H., Lubelski, A., **Regev, T**., Klafter, J., Henis, Y.I., Geiger, B. (2009) A Role for the Juxtamembrane Cytoplasm in the Molecular Dynamics of Focal Adhesions. *PLoS ONE.* Volume 4, Issue 1, e4304. Paper

Madi, A., Friedman, Y., Roth, D., **Regev, T.**, Bransburg-Zabary, S., Ben Jacob, E. (2008) Genome Holography: Deciphering Function-Form Motifs from Gene Expression Data. *PLoS ONE.* Volume 3, Issue 7, e2708. Paper

SELECTED TALKS

Talks –

Apr 2024 – CNS – Toronto – Symposium organization and talk: A network of brain areas is sensitive to prosody and distinct from language and auditory areas.

Nov 2023 – Simons Center for the Social Brain, lunch series.

Jun 2023 – Psychology and Neuroscience Symposium for Israeli Postdocs Abroad (best abstract award).

Oct 2021 – BU Hearing Research Center seminar. Modeling frequency adaptation reveals multiple time scales of auditory context integration.

May 2021 – CogLunch seminar, MIT department of Brain and Cognitive Science. High-level language brain regions are sensitive to sub-lexical regularities.

Mar 2021 – Group meeting Prof. Tali Bitan, Haifa U. Sensitivity of high-level language processing brain regions to phonological information.

Aug 2019 – SMPC – New-York. The neural representation of pitch – height versus chroma.

Aug 2019 – SMPC – New-York. Statistical context sensitivity of ERP components in an unattended tone sequence.

Feb 2019 – ARO – Baltimore. Evidence for linear but not helical automatic representation of pitch in human auditory system.

Feb 2017 – ISCOP – Acre. Music Cognition symposium organization and talk: Early neural processing of pitch – height versus chroma.

Feb 2015 – ELSC, Ein Gedi**.** Early visual response in human posterior parietal cortex revealed by onset latency estimation using electrocorticographic (ECoG) recordings.

Conference posters –

Oct. 2022 – SNL – Philadelphia. Two Posters:

1. "Neural representation of prosody" Poster + slam presentation.
2. "Heterogeneous neural responses distributed across the language network revealed by electrocorticography" Poster

Oct. 2020 – SNL – virtual. Poster: "Sensitivity of high-level language processing brain regions to phonological information".
Oct. 2019 – SFN + APAN – Chicago. Poster: "Context sensitivity across multiple time and frequency scales".
Mar. 2019 – CNS – San-Francisco. Poster: "Context sensitivity of the N1 and P2 components in an unattended tone sequence".
Jan. 2019 – ISFN – Eilat. Poster: "Context sensitivity of the N1 and P2 components in an unattended tone sequence".
Aug. 2017 – ICON – Amsterdam. Poster: "Automatic representation of pitch in human auditory cortex is linear and not helical".
Jul. 2016 – ICMPC – San-Francisco. Poster: "Is pitch chroma discrimination automatic? – an EEG study".
Nov. 2014 – SFN – San Diego. Poster: "Electrocorticographic evidence for near-simultaneous early visual response in V1 and posterior parietal cortex in humans".
Dec. 2012 – ISFN – Eilat. Poster selected for swift presentation: "Coupling Sound to Movement – Design and Assessment of Learned Auditory-Proprioceptive Integration".
Jul. 2012 – ICMPC-ESCOM – Thessaloniki. Poster and spoken presentation: "Sonic Feedback to Movement as Learned Auditory-Proprioceptive Sensory Integration".

EMPLOYMENT AND TEACHING

2020 – ongoing – Speech perception class in MIT course "Language and the Brain" (by Prof. Evelina Fedorenko)
2017 – 2018 – lab manager of Prof. Leon Deouell, Hebrew University.
2013 – 2014 – Hebrew University. TA leading 2 reading groups: 1) Human conscious awareness, 2) Inter-individual differences and socio-political implications.
2011 – 2012 – Hebrew University. Teaching Physics for Life Science (assistance classes for foreign students).
2008 – 2009 – Tel-Aviv University. Teaching Physics for Life Science, Math for Business (assistance classes for students in need run through the student body).
2007 – Tel-Aviv University, Physics of Complex Systems Dept. RA of Prof. Eshel Ben-Jacob.

ADVISING

Graduate – Lukas Wolf (ETH, Jan-Sept 2023); Moshe Poliak (MIT, Sept 2023, ongoing); Sihan Chen (MIT, Feb 2021 - ongoing)
Undergraduate – Hee So Kim (MIT, Feb 2022 – Feb 2023); Julie Meng (MIT, June 2020 – June 2021); Anna Dawson (MIT, June-Sept 2020); Abigail Schipper (MIT, Sept 2020 – Sept 2021); Heidi Durresi (MIT Feb-Dec 2021); Ye Joo Han (Harvard, Feb 2021 – Feb 2022).

REVIEWING

Comm. Biol., J. Neurosci., Proc. R. Soc. B, Eur. J. Neurosci., Curr. Res. Neurobiol.

VOLUNTEERING

2016 - NeuroTechX - co-founder of NeurotechTLV.
2016 - 2019 - The Garden Library. Teaching asylum seekers Hebrew and English.
2015 - 2016 - Alpha – Tutoring high school students in academic lab projects. Hebrew University.
2012 - 2019 - Lectures to school kids for promoting their interest in brain science.

LANGUAGES

Hebrew – Native; English – Fluent; Spanish – Conversant