Ofri Levi-CV

Phone number: +972526264128
Email address: ofri.le@migal.org.il
Kibbutz Beit Zera, northeastern Israel
Date of birth: April 22, 1988

Research experience:

Principal investigator at MIGAL - Galilee Research Institute 2024-present
Senior lecturer at Tel-Hai College 2024-present

Teaching experience

Teaching Assistant, Technion, 134082 - Molecular biology 2018-2022
Teaching Assistant, Technion, 134119 - Regulation of gene expression 2019-2022

EDUCATION

Postdoctoral researcher, Faculty of Biology Technion 2022- 2024
Title: "Genome-wide CRISPRi-based characterization of stress response to plant-derived phenolic compounds in the maize pathogen *Cochliobolus heterostrophus*"
Supervisor: Prof. Benjamin Horwitz
Direct Ph.D. track, Faculty of Biology Technion 2016-2022
Title: "Roles of Aminoacyl tRNA synthetases in mRNA regulation"
Supervisor: Prof. Yoav Arava.
B.Sc., Biotechnology (*Magna Cum Laude)* Tel-Hai academic college. 2013- 2016

HONORS, AWARDS & GRANTS

Israel Science Foundation (ISF) Personal Research Grants Program*," Revealing Antifungal Activity of Plant-Derived Compounds and Resistance Mechanisms of Key Antifungal Drugs Using a Genome-wide CRISPRi Screen*" Principal Investigator (2025-2030)
Helmsley Fellowships for Sustainability and Health -Starting Grant for New Research Lab (2024-2027)
Prof. David and Harriet Gershon Excellence -
Award Awarded for Outstanding Achievements During PhD Studies 2021
Jacobs Prize for Outstanding Paper, Technion 2020
Jacob's Fellowship for Excellence in Research, Technion 2020
Excellent Publication Prize, Faculty of Biology, Technion 2020
Teaching Assistant Excellence Award, Technion 2018, 2019, 2020, 2021,2022
Paper of the Month award, Faculty of Biology, Technion May 2019, Jan. 2020, and Nov. 2020
Research excellence award, Faculty of Biology, Technion 2019, 2020
B.Sc. Magna cum laude, Tel-Hai academic college 2016

Publications and Academic Experience

- 2025- Peer-reviewing a paper for a scientific journal (*Nucleic Acids Research*)
- 2021- Peer-reviewing a paper for a scientific journal (*The CRISPR journal*)

- Rina Zuchman1, Roni Koren, Tamar Ziv, Yael Lupu-Haber, Nitsan Dahan, **Ofri Levi***, and Benjamin A. Horwitz* (*corresponding author) "Cytoplasmic sequestering of a fungal stress-activated MAPK in response to a host plant phenolic acid" **Under review** (Research Square Preprint)

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1. **Ofri Levi***, Rina Zuchman, Nour Sleman, Roni Koren, Hazem Khamaisi and Benjamin A. Horwitz* (*corresponding author) “Genome-Wide CRISPRi Screen and Proteomic Profiling Identify Key Genes Related to Ferulic Acid's Antifungal Activity” (2025) *mBio*
2. Kasper P. Lundquist, Emily S. Hudson, Marie L. Gram, Maëlle Pestalozzi, Raffaele B. Puglielli, **Ofri Levi**, Yoav S. Arava, Alina Vilensky, Timor Baasov, Charlotte H. Gotfredsen, and Mads H. Clausen "Design, Synthesis, and Screening of an RNA Optimized Fluorinated Fragment Library” (2025) (SLAS Discovery)
3. **Ofri Levi**, Monalisha Mallik and Yoav Arava “ThrRS-mediated translation regulation of the RNA polymerase III subunit RPC10 occurs through an ASL-like structure and affects tRNA levels” (2023) Genes
4. Shahar Garin, **Ofri Levi**, Megan E. Forrest, Anthony Antonellis, and Yoav S. Arava “Comprehensive characterization of mRNAs associated with yeast cytosolic aminoacyl-tRNA synthetases” (2021) RNA Biology
5. **Ofri Levi** and Yoav Arava “RNA modifications as a common denominator between tRNA and mRNA” (2021) Current Genetics
6. **Ofri Levi** and Yoav Arava “Pseudouridine-mediated translation control by methionine aminoacyl tRNA synthetase” (2021) *Nucleic Acids Research*
7. Shahar Garin, **Ofri Levi**, Bar Cohen, Adi Golani, and Yoav Arava “Localization and RNA binding of mitochondrial aminoacyl tRNA synthetases” **(**2020) Genes
8. **Ofri Levi** and Yoav Arava "Expanding the CRISPR/Cas9 toolbox for gene engineering in *S. cerevisiae*" (2020) Current Microbiology
9. **Ofri Levi** and Yoav Arava "mRNA association by aminoacyl tRNA synthetase occurs at an anticodon mimic and autoregulates translation in response to tRNA levels" (2019) PLOS Biology
10. **Ofri Levi**, Shahar Garin and Yoav Arava "RNA mimicry in post-transcriptional regulation by aminoacyl tRNA synthetases" (2019) WIREs RNA

Oral Presentation

- “Genome-wide CRISPRi Exploration of Plant-derived Compounds for Antifungal Potential” ISM Annual Meeting, 2024
- “Genome-wide CRISPRi Exploration of Plant-derived Compounds for Antifungal Potential” Molecular Mycology Meeting, Tel Aviv University, 2024
- “Genome-wide CRISPRi Exploration of Plant-derived Compounds for Antifungal Potential” The Annual Yeast Meeting, Tel Aviv University, 2024
- "Roles of Aminoacyl tRNA synthetases in mRNA regulation" Ph.D. seminar, Faculty of Biology Technion 2022
- “New role for an old family of enzymes” David and Harriet Gershon Excellence Awards Ceremony, Technion, 2021, award lecture
- "Novel cross-talk between tRNA and mRNA processes exerted by Aminoacyl tRNA synthetases" RNA Society, Krakow, 2019
- "Roles of Aminoacyl tRNA synthetases in gene expression regulation" RNA club, Technion, 2019
- "Roles of Aminoacyl tRNA synthetases in mRNA regulation" Faculty of Biology Technion Bio Retreat, Israel, 2018

Poster presentations

- “Genome-Wide CRISPRi Screen and Proteomic Profiling Identify Key Genes Related to
- Ferulic Acid's Antifungal Activity” The International Conference on Yeast Genetics and Molecular Biology, Paris, 2025
- “Cytoplasmic sequestering of a fungal stress-activated MAPK in response to a host plant phenolic acid” faculty of biology Technion Bio Retreat, 2023
- “Plant phenolic compounds promote Fungi stress granules formation” ILANIT, 2023
- "RNA modification mediates translation regulation by Aminoacyl tRNA synthetases“ RNA meeting in memory of Yossi Sperling, 2022
- “RNA modification mediates translation regulation by Aminoacyl tRNA synthetases” faculty of biology Technion Bio Retreat, 2022
- “RNA modification mediates translation regulation by Aminoacyl tRNA synthetases” ILANIT, 2020

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- “Pseudouridine and Anticodon structure mediates translation regulation by Aminoacyl tRNA synthetases" RNA meeting in memory of Yossi Sperling, 2019
- "Roles of Aminoacyl tRNA synthetases in mRNA regulation" RNA meeting in memory of Yossi Sperling, 2018
- "Roles of Aminoacyl tRNA synthetases in mRNA regulation" faculty of biology Technion Bio Retreat, 2018