

URI SPRECHER

PhD. Student, TAU

PROFILE

My name is Uri and I am currently pursuing a PhD in Biology at Tel Aviv University. My research is focused on rare disorders called GSD's. I utilize cutting-edge technology and sophisticated statistical analysis tools to model fibroblasts from patients and to evaluate potential drugs for these disorders.

Through my research, I have established three effective models of GSD's which have helped me to identify a drug for APBD, a neurogenerative GSD. This drug is currently being provided as compassionate treatment for patients.

I am currently leading a project to identify potential drugs for other GSD's using various experimental procedures and my expertise in data analysis and statistical modeling. The advancements in the fields of AI and bioinformatics have enabled me to utilize my data analysis and computational skills to efficiently define and bring forward these potential drugs. Moreover, I contributed to a project that established a fibroblast model for Huntington disease.

As a highly motivated and dedicated researcher, I am passionate about exploring the intricacies of my area of study and applying my findings to solve real-world problems.

CONTACTS

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<https://github.com/Urisprecher>

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Hoofien 7, Tel-Aviv

SKILLS

- Languages: Hebrew, English
- Programming Languages: Python, R
- Experience with scientific data analysis and imaging
- Experience in fundamental concepts in biology & statistics

EDUCATION

Tel Aviv University

2021 – present

Direct PhD. Track, establishing primary fibroblasts from Glycogen Storage Disorders patients as a predictive or personalized drug evaluation model using high content analysis, omics and computational meta-analysis tools, under the supervision of Prof. Miguel Weil, the Shmunis School of Biomedicine and Cancer Research, the George S. Wise Faculty for Life Sciences, Sagol School of Neurosciences, Tel Aviv University

Tel Aviv University

2020 – 2022

Master in biology

Tel Aviv University

2017 – 2020

B. A in biology,

"Sieem" Campus at Tel Aviv University

2012

Physical education and sports studies (as a gym instructor and basketball instructor)

Ironi-Daled High School, Tel Aviv

2009-2011

Full matriculation (Extended professions: sports and chemistry)

WORK EXPERIENCE

Tel Aviv University

2021-present

Teaching assistant – molecular cell biology lab course, the George S. Wise Faculty for Life Sciences

The Good Chocolate

2015- present

Internet and Social Media Marketing Manager

Independent

2012-2013, 2015 - present

Personal fitness coach and basketball coach

Teva Bari

2015 - 2018

Operations and Delivery

Independent

2011-2012

Flower Marketer

MILITARY SERVICE

Head of a clinic, 7th Brigade, Armored Corps

2014 - 2015

The position required compliance with many tasks in unconventional working conditions, responsibility for equipment and manpower and high-level organizational, command and order capabilities, cooperation with senior ranks.

Squad medic in the 7th Brigade, Armored Corps

2013 - 2014

Squad medic in the 7th Brigade, Armored Corps (senior medical authority in the company, responsibility for the health of the company's soldiers, training of the company's soldiers, management of routine and emergency medical incidents)

Combat medic in the 7th Brigade, Armored Corps

2012 - 2013

PUBLICATIONS

1. O. Kakhlon, H. Vaknin, K. Mishra, J. D'Souza, M. Marisat, **U. Sprecher**, S. Wald-Altman, A. Dukhovny, Y. Raviv, B. Da'adoosh, H. Engel, S. Benhamron, K. Nitzan, S. Sweetat, A. Permyakova, A. Mordechai, H. O. Akman, H. Rosenmann, A. Lossos, J. Tam, B. A. Minassian, M. Weil. Alleviation of a polyglucosan storage disorder by enhancement of autophagic glycogen catabolism. *EMBO Mol. Med.*, 2021
<https://www.embopress.org/doi/full/10.15252/emmm.202114554>
2. S. Gharaba, O. Paz, L. Feld, A. Anastasia, M. Weinrab, N. Muchtar, A. Baransi, A. Shalem, **U. Sprecher**, L. Wolf, H. Wolfenson, M. Weil. Perturbed actin cap as a new personalized biomarker in primary fibroblasts of Huntington's disease patients. *Frontiers in Cell and Developmental Biology*. 2023
<https://www.frontiersin.org/articles/10.3389/fcell.2023.1013721/full>
3. **U Sprecher**, D'Souza J, Mishra K, Muchtar N, Canella Miliano A, Mithieux G, Rajas F, Avraham S, Castellani M F, Kauffman H, Bergman Y, Linial M, Anikster Y, Kakhlon O, and Weil M. Disease-associated imprinting of cell memory in glycogen storage disorder type 1a.
<https://www.biorxiv.org/content/10.1101/2023.02.20.529109v12023> Under review -JCB.
4. K Mishra, S Sweetat, S Baraghithy, **U Sprecher**, M Marisat, S Bastu, H Glickstein, G Ronzitti, J Tam, H Rosenmann, M Weil, E Malfatti and O Kakhlon. The autophagic activator GHF201 can alleviate pathology in a mouse model and in patient fibroblasts of type III glycogenosis. *MDPI, biomolecules*. 2024
<https://www.mdpi.com/2883160>
5. S Gharaba[‡], **U Sprecher**[‡], A Baransi, N Muchtar and M Weil. Characterization of Fission and Fusion Mitochondrial dynamics in HD fibroblasts according to patient's severity status. *Movement Disorders*. 2024
<https://www.sciencedirect.com/science/article/pii/S0969996124002675?via%3Dihub>
6. **U Sprecher**, J Dsouza, M Marisat, D Barasch, K Mishra, O Kakhlon, J Manor, Y Anikster and M Weil. In depth profiling of dihydrolipoamide dehydrogenase deficiency in primary patients' fibroblasts reveals metabolic reprogramming secondary to mitochondrial dysfunction. Under review - *Molecular Genetics and Metabolism reports*. 2024

CONFERENCE AND POSTERS APPEARANCES

1. SSIEM Annual International Symposium 2023, held at the ICC Jerusalem - International Convention Center, Israel on 29 August - 1 September, 2023.- **Poster presentation.**
2. Global Young Scientists Summit 2024, held at the University of Singapore, Singapore on January 6-13, 2024- **Poster presentation.**
3. Israel Society of metabolic disorders annual summit 2024, held at Elma hotel, Zikhron Ya'akov on September 16-17 2024. – **Closing Lecture.**

SCHOLARSHIPS AND AWARDS

1. Shmunis Excellence Scholarship 2021/2022.
2. ISMD Researchers from Academia Grant for the SSIEM 2023 Symposium.
3. The Yoran Institute of Genome Research and Personalized Medicine Scholarship.2023
4. The Excellence award in Teaching, the George S. Wise Faculty for Life Sciences, Tel Aviv University 2023.
5. Booster travel grant from the Vice President's office 2024.
6. The Tel Aviv University Prajs-Drimmer institute for Development of Anti-Degenerative Drugs. 2024
7. The Ela Kodesz Institute for Research on Cancer Development and Prevention TRAVEL GRANTS.2024