

HANAA ADSI

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EDUCATION

2019 - Present

Ph.D. Student, The Shmunis School of Biomedicine and Cancer Research

Faculty of Life Sciences, Tel Aviv University

Advisor: Prof. Ehud Gazit

2017 - 2019

M.Sc., School of Molecular Cell Biology and Biotechnology

Faculty of Life Sciences, Tel Aviv University

Thesis title: A novel yeast model for tyrosine accumulation and self-assembly.

Advisor: Prof. Ehud Gazit

2012 - 2016

B.Sc., Biology, General

Faculty of Life Sciences, Tel Aviv University

AWARDS

- "Tariquki" women's doctoral program scholarship for outstanding female PhD students (2021).
- The Ariane de Rothschild women's doctoral program scholarship for outstanding female PhD students (2020).
- Honor's scholarship of the Smolarz School of Graduate Studies for Excellent Students, Tel Aviv university (2016).

PUBLICATIONS

1. **Adsi, H.**, Gazit, E. & Laor, D. Recapitulating tyrosinemia in a yeast model system (*in preparation*).
2. **Adsi, H.**, Levkovich S. A., Kreiser, K., Karidi-Heller, S., Rencus-lazar, S., Gazit, E. & Laor, D. Chemical chaperones modulate the formation of adenine amyloid-like structures (*To be submitted*).
3. Sade D., Laor D., **Adsi, H.**, Shaham-Niv, S., Bera S., Frenkel, D. and Gazit E. Homocysteine fibrillar assemblies show metabolite-protein cross-talk. *PNAS* (2021).
4. Rencus-lazar, S., Derowe, Y., **Adsi, H.**, Gazit, E. and Laor, D. Yeast Models for the Study of Amyloid-Associated Disorders and Development of Future Therapy. *Front. Mol. Biosciences* 6, 1–10 (2019).

RESEARCH EXPERIENCE

2017 - Present

Researcher (MSc and PhD Student), Prof. Ehud Gazit's Research Group, The Shmunis School of Biomedicine and Cancer Research, Faculty of Life Sciences, Tel Aviv University

Following the extension of the generic amyloid hypothesis to include metabolites, which possess the ability to form nanofibrillar structures and display amyloid-like properties, a new paradigm for the pathophysiology of metabolic diseases was established. By utilizing the budding yeast *S. cerevisiae* and advanced physical and chemical approaches, I focus on examining both the mechanism and the consequences of metabolite self-assembly in order to better understand the pathology of such diseases and discover new potential drugs.

2016 - 2017

Researcher (Research Assistant), Prof. Abdussalam Azem's Research Group, Department of Biochemistry and Molecular Biology, Faculty of Life Sciences, Tel Aviv University

Mitochondrial Encephalopathy disorder results from mutations in the TIM23 complex subunit, Tim50. My research focused on revealing the molecular basis of this disorder by the characterization of the indicated mutations using a yeast model.

2015 - 2016

Research Project, Prof. Gabriel Kaufmann's Research Group, Department of Biochemistry and Molecular Biology, Faculty of Life Sciences, Tel Aviv University

Project title: "dsDNA break (DSB) inducers activate APEC-01RloC which cleaves tRNA^{Ala(GGC)}"

QUALIFICATIONS AND SKILLS

Laboratory Techniques: Western blotting; Radioactive labeling; Two-Dimensional Thin-Layer Chromatography; Yeast strain construction; PCR, molecular cloning; site-directed mutagenesis; plasmid, RNA and genomic DNA extraction; plasmids cloning; yeast and bacterial transformations; yeast growth assays; cell growth assays; flow cytometry (FACS); optical microscopy; confocal microscopy; fluorescent microscopy; amyloid-specific dye fluorescence assays; transmission electron microscopy (TEM); yeast growth monitoring using microfluidics techniques.

*Qualified to use laboratory animals in biomedical research (Certificate from Tel Aviv university).

Languages: Arabic (Native), Hebrew (Fluent), English (Fluent), Spanish (Basic)

WORK EXPERIENCE

2020 – Present

Laboratory Instructor (teaching assistant), Student Molecular Biology Laboratory

Faculty of Life Sciences, Tel Aviv University

Responsibilities included student lab preparation, instructing undergraduate student and evaluation grading.

2016 – 2017

Research Assistant, Department of Biochemistry and Molecular Biology

Faculty of Life Sciences, Tel Aviv University

Prof. Abdussalam Azem's research group

2016 – 2017

Laboratory Instructor (teaching assistant), Student Chemistry Laboratory

Faculty of Life Sciences, Tel Aviv University

Responsibilities included student lab preparation, instructing undergraduate student and evaluation grading.

ACTIVITIES

2019

Research Instructor - Youth Center for Advanced Studies (נוער שוחר מדע)

Mentored a group of high-school students and showcased how to conduct research

2018 – 2019

"Alpha" Program, Youth Center for Advance Studies

Scientific instructor for a high-school student (who is a co-author of a paper)

2018

Educational Program, Shremax Company

Encouraged high-school students to enroll in academic studies; represented the Life Sciences faculty

Good Deeds Days

Volunteered at "Latet" organization with the Gazit lab

2014-2015

"Mithabrim" Scholarship, Tel Aviv University

Financial education tutor for elementary school students

2013-2014

"Sawa Men Awal Yom" Project, Faculty of Life Sciences, Tel Aviv University

Academic mentor for undergraduate students

"Hinuch Le'Psagot", Ironi Yud-Bet High-School, Tel Aviv

English tutor for high-school students

2009-2010

"Ezra Lazulat" Project, Tel Hashomer Hospital

Assistant for children diagnosed with cancer, aged 5-10

2007-2009

Jewish – Arab Community Center

Youth mentor