

Moran Frenkel-Pinter, Ph.D.

Senior Lecturer (assistant professor)
Institute of Chemistry | The Hebrew University of Jerusalem
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Education:

2016 - Ph.D. in the Argentina Direct Ph.D. Honors Program for Excellent Students in Biology at Tel Aviv University (TAU), Israel. Advisors: Prof. Daniel Segal and Prof. Ehud Gazit.

Dissertation title: *Sweet Neurobiology: Establishing the Role of Protein Glycosylation Alterations in Alzheimer's Disease*

2012 - M.Sc. Biotechnology, received during the Ph.D. program.

2009 - B.Sc. "Biology with emphasis on Biotechnology" from Tel Aviv University, Israel. *Summa Cum Laude*

Research appointments:

July 2021 – present – Senior lecturer (assistant professor), Institute of Chemistry, The Hebrew University of Jerusalem, Israel.

August 2019 – July 2021 – Research scientist, School of Chemistry and Biochemistry, member of the Center for Chemical Evolution (CCE) and the NASA Center for the Origins of Life, Georgia Institute of Technology, Atlanta, GA, USA (Williams, Hud and Grover groups).

August 2018 – July 2021 – Sub-Group Leader of the NASA Center for the Origins of Life (COOL) – Supervise the research of two undergraduates, three graduate students, and a technician.

August 2017 - August 2019 – NASA postdoctoral fellow, School of Chemistry and Biochemistry and the Center for Chemical Evolution (CCE), Georgia Institute of Technology, Atlanta, GA, USA (Williams, Hud and Grover groups).

August 2016 - August 2017 – Postdoctoral Fellow, School of Chemistry and Biochemistry and the Center for Chemical Evolution, Georgia Institute of Technology, Atlanta, GA, USA (Hud and Grover groups).

Teaching and Tutoring experience:

2010 - present – Research guidance of undergraduate and graduate students

2010 - 2014 – Teaching Assistant in General Genetics course (4 semesters), Tel Aviv University

Service:

2021 – Guest Editor, *International Journal of Molecular Sciences*

2020 - 2021 – Topic Editorial Board Member, *Life*

2020 – NASA review panelist

2020 – NSF expert reviewer

2020 – Member of the COVID-19 Test Support Team at Georgia Tech.

2018 - 2019 – Member of the School Safety & Risk Management Committee.
2018 – Organizer of the annual Georgia Tech Astrobiology colloquium.
2004 - 2006 – Israel Defense Forces – Served in the Intelligence Corps. Research leader for a unique technologically-oriented project in an elite unit.

Languages:

Hebrew - native speaker

English - fluent

Grants and awards received within the past five years:

2021-2024 – Awarded an Azrieli Early Career Faculty Fellowship (735,000 ILS for research).
2018 - Won the TAU President's Women postdoctoral fellowship for Advancing Women in Science.
2018 - Selected talk at the "Origins of Life" Gordon Research Conference (GRC) award.
2017 – Awarded the NASA Astrobiology Postdoctoral Program Fellowship.

Past Fellowships, Honors and Awards:

2014 - Awarded a travel scholarship for attending the 2014 Meeting of the Society for Glycobiology (Honolulu, USA) by the Committee of the Society for Glycobiology.
2014 - Awarded a scholarship for excellence in teaching, Tel Aviv University.
2014 - Awarded the Anat Krauskopf fund travel scholarship.
2013 - Awarded the Daniel Turnberg travel fellowship.
2013 - Awarded a travel scholarship by TAU to represent Tel Aviv University in the First Bilateral Israel-Taiwan Life Science Conference.
2012 - Awarded the National Eshkol PhD Fellowship.
2012 - Awarded a scholarship for excellence in teaching, Tel Aviv University.
2011 - Awarded a travel scholarship by the TAU Center for Nanoscale Science and Technology.
2011 - Awarded a travel scholarship by the Joan and Jaime Constantiner Institute for Molecular Genetics, Tel Aviv University.
2010 - Awarded a travel scholarship by the Disease Models and Mechanisms of The Company of Biologists.
2010 - Awarded a travel scholarship by the Manna Center for Plant Biosciences, Tel Aviv University.
2010 - Accepted to the **Argentina Direct Ph.D Honors Program for Excellent Students** in Biology at Tel Aviv University.
2009 - Dean's honor roll.
2008 - Accepted to Ulpanot Amos De Shalit in Weizmann Institute for excellent life sciences undergraduates.

Research:

Current - Synergizing from my PhD background in biotechnology with my postdoctoral background in prebiotic chemistry, I seek to merge concepts from chemical evolution and biotechnology and harness the creative power of chemical evolution towards development of evolving functional biodegradable chains of molecules (polymers) for biotechnological applications as well as to study the origins of life on Earth.

Postdoctoral Research - Elucidating mechanisms that lead to the formation of proto-peptides that can spontaneously polymerize, fold and interact with nucleic acids under prebiotic conditions.

PIs: Prof. Loren D. Williams, Prof. Nicholas V. Hud, and Prof. Martha A. Grover, Georgia Institute of Technology

PhD research - The role of protein glycosylation alterations in Alzheimer's disease and elucidation of the effect of glycosylation on peptide self-assembly. Advisors: Prof. Daniel Segal and Prof. Ehud Gazit, Dept. of Molecular Microbiology and Biotechnology, TAU

PhD Lab Rotation: Novel approaches for inhibition of α -synuclein aggregation in Parkinson's disease.

Presentations at conferences and symposia:

Invited Talks

- **2021:** The 19th International Society for the Study of the Origin of Life (ISSOL) conference, *virtual meeting*
- **2021:** Keynote speaker and session chair, Trends in NanoTechnology 2021 (TNT2021), Tirana, Albania
- **2021:** Departmental seminar – *Mutually-Stabilizing Interactions Between Cationic Depsipeptides and RNA*, University of Puerto Rico, Mayagüez (*virtual*)
- **2020:** PCE₃ NASA Workshop – [*What is Chemical Evolution*](#)
- **2020:** Keynote speaker, the 33rd annual meeting of The Israel Society for Astrobiology and the Origin of Life (ILASOL), TAU, Israel
- **2020:** Departmental seminar - *Structure-Function Guided Exploration of Interactions Between Cationic Depsipeptides and RNA*, BGU, Israel.
- **2019:** Departmental seminar - *Depsipeptides and RNA: From Molecules to Early Interactome*, The Weizmann Institute, Israel.
- **2017:** Departmental seminar - *Dynamic Polymerization of Prebiotic Depsipeptides Allows Selection of Stable Structures*, BIU, Israel.

Oral Presentations

- **2020:** ILANIT Conference, Eilat, Israel.
- **2019:** AbSciCon, Bellevue WA, USA.
- **2019:** Astrobiology Colloquium GT, Atlanta GA, USA.
- **2018:** NASA Astrobiology Institute (NAI) Meeting, Atlanta GA, USA.
- **2018:** AbGradCon, Georgia Tech, Atlanta GA, USA.
- **2018:** "Environments of Terrestrial Planets Under the Young Sun: Seeds of Biomolecules" Symposium, NASA Goddard Space Flight Center, Greenbelt MD, USA.
- **2018:** **Selected talk** at the "Origins of Life" Gordon Research Conference (GRC), Galveston TX, USA.
- **2016:** The 24th Tel-Aviv University Alzheimer's Disease Conference, Tel Aviv University, Israel.
- **2014:** The annual Meeting of the Society for Glycobiology, Honolulu HI, USA.
- **2014:** The 13th Bratislava Symposium on Saccharides, Smolenice castle, Slovakia.
- **2014:** The 22nd Tel-Aviv University Alzheimer's Disease Conference, Tel Aviv University, Israel.
- **2014:** The Israeli Fly-Worm meeting, Bar Ilan University, Israel.
- **2013:** Freie Universität Berlin – Tel Aviv University Symposium, Berlin, Germany.

- **2013:** EuroCarb conference, Tel Aviv, Israel.
- **2013:** Brain storming PD conference, Haifa, Israel.
- **2011:** ISFN conference, Eilat, Israel.
- **2011:** The Fly-Worm annual meeting, Tel Aviv University, Israel.
- **2011:** The 19th Tel-Aviv University Alzheimer's disease conference, Tel Aviv University, Israel.

Posters

- **2019:** The 7th ELSI Symposium, Tokyo, Japan.
- **2018:** The "Origins of Life" Gordon Research Conference (GRC) and Gordon Research Seminar (GRS), Galveston TX, USA.
- **2017:** The XVIII International Conference on the Origin of Life, San Diego CA, USA.
- **2013:** The First Bilateral Israel – Taiwan Life Science Conference, Taiwan.
- **2013:** ADPD conference, Florence, Italy.
- **2012:** ISFN conference, Eilat, Israel.
- **2011:** Amyloid Fibrils, Prions and Precursors: Molecules for Targeted Intervention conference, Halle (Saale), Germany.
- **2011:** ADPD conference, Barcelona, Spain.
- **2011:** ILANIT conference, Eilat, Israel.