

RESUME

Full name: Aseel Shomar

ACADEMIC DEGREES

- 2017-present Ph.D in Chemical Engineering, Technion, Haifa, Israel. Advisors: Prof. Naama Brenner and Prof. Omri Barak. Thesis subject: Cell States and Transitions in Development and Cancer: Insights from Learning Theory.
- 2013-2017 M.Sc. in Nanoscience and Nanotechnology, Technion, Haifa, Israel. Advisors: Prof. Naama Brenner and Prof. Noam Ziv. Thesis subject: Synaptic size dynamics as a mesoscopic biophysical process. GPA: 95.1, thesis grade: 95. *Summa Cum Laude*. Rank in class: first.
- 2009-2013 B.Sc. in Biochemical Engineering, Technion, Haifa, Israel. GPA: 94.1. *Summa Cum Laude*. Rank in class: first. Senior thesis: Development of nano-sized factories that manufacture cancer drugs at tumor sites. Advisor: Prof. Avi Schroeder.

PROFESSIONAL EXPERIENCE (outside academia, if relevant)

- 2018-2019 Project instructor. Project topic: Characterization of Boolean vs. continuous dynamics in biological networks
- 2008-2012 Psychometry exam (equivalent to the SAT exam in the US) tutor at Epsos LTD

TEACHING EXPERIENCE

- Teaching assistant in charge Signals and Systems B -undergraduate course for M.D. students
- Teaching assistant Signals and Systems B -undergraduate course for M.D. students

FELLOWSHIPS, AWARDS AND HONORS

- 2020 The best presentation prize-The 2nd International Workshop on Informatics and Dynamics in Complex Networks.
- 2020 The excellent poster prize-Adams Fellowship Conference
- 2020 The excellent teaching assistant prize
- 2019 Adams Fellowship
- 2014 Avrahami prize for excellence in research
- 2013-2014 Sherman Interdisciplinary Graduate School Fellowship for distinguished

academic achievements (*Summa Cum Laude*)

2013-2014	Excellence Scholarship Dean's Support
2013	The excellent poster prize
2012	Goldstein prize for excellence in chemical engineering
2011	The Technion Alumni award
2010-2013	Noam Scholarship for academic excellence

PUBLICATIONS

Refereed papers in professional journals

- Zoabi N, Golani-Armon A, Zinger A, Reshef M, Yaari Z, Vardi-Oknin D, Shatsberg Z, **Shomar A**, Shainsky-Roitman J, Schroeder A (2013). The evolution of tumor targeted-drug delivery: from the EPR Effect to nanoswimmers. Israel Journal of Chemistry. Special Issue: New Biomaterials for Therapy: Wolf Prize for Robert S. Langer;(53), 9-10, 719-727.
- **Shomar A**, Geyrhofer L, Ziv NE, Brenner N (2017). Cooperative stochastic binding and unbinding explain synaptic size dynamics and statistics. PLoS Comput Biol 13(7): e1005668.
- **Shomar A**, Barak O, Brenner N (2020). Local and global features of genetic networks supporting a phenotypic switch. PLOS One.

CONFERENCES

Lectures

- "Describing synaptic size dynamics as a mesoscopic biophysical process". Israel Society for Neuroscience annual meeting (Chinese-Israeli bi-national neuroscience meeting), Eilat, Israel, December 2015.
- "Describing synaptic size dynamics as a mesoscopic biophysical process". Third Workshop on Advanced Methods in Theoretical Neuroscience, Max Planck Institute, Göttingen, Germany, June 2018.
- "Local and global features of genetic networks supporting a phenotypic switch". The 2nd International Workshop on Informatics and Dynamics in Complex Networks. The University of Catania, Catania, Italy, February 2020.

Poster presentation

- **Shomar A**, Ziv NE, Brenner N. “Describing synaptic size as a mesoscopic biophysical process”. Israel Society for Neuroscience annual meeting (Chinese-Israeli bi-national neuroscience meeting), Eilat, Israel, December **2015**.
- **Shomar A**, Barak O, Brenner N. “Local and global features of genetic networks supporting a phenotypic switch”. Adams conference, Jerusalem, Israel, January **2020**.