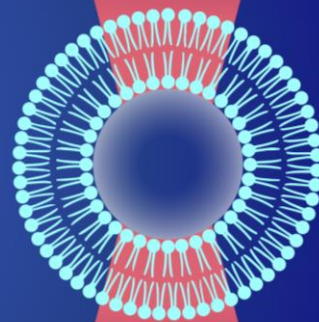


# SORKIN LAB

Membrane and cellular biophysics



## Post-Doctoral Position: Unraveling Membrane Fusion Mechanisms Using Mechanical Single-Molecule Methods

At the newly-founded group of Dr. Raya Sorkin, Department of Physical Chemistry, School of Chemistry, Tel Aviv University, Israel, <https://sorkinraya.wixsite.com/sorkinlab>

**Start Date:** Flexible

**Term of appointment:** 1 year initial appointment, renewal upon mutual agreement for additional 1/2 years.

**Salary:** Starting from 10,000 NIS net per month.

**Project Overview:** Fertilization is a multistep and complex process culminating in gamete fusion, leading to zygote formation which then develops to form a new individual. Even though the fusion of egg and sperm membranes is a key event in this process, there is still very little known about its mechanism. The aim of this project is to reveal the role and action mechanisms of key proteins in the fusion process, using a combination of microscopy and mechanical single-molecule techniques (including optical tweezers and AFM). The approach includes developing controlled model systems, such as micro-beads coated with membranes of defined composition with incorporated proteins of interest, to quantitatively study protein-protein and protein-membrane interactions.

**Your profile:** For this interdisciplinary project, we look for a trained experimentalist with a strong record of research in biophysics or soft matter, preferably with prior experience with membrane model systems (e.g., GUVs, GPMVs) or force-spectroscopy. A Ph.D. in biophysics, physics, chemistry, biochemistry, molecular biology or a related field is required. Additional qualifications: fluent in English (spoken and written), self-motivated, and able to thrive in a collaborative and multidisciplinary environment.

**Our lab** is equipped with state of the art instrumentation for single-molecule mechanical studies. We are affiliated with the Center for the Physics and Chemistry of Living Systems at Tel Aviv University that provides a most stimulating environment for biophysical research by bringing together groups from various disciplines that study biophysical problems by a wide range of approaches. The campus is located in the north of Tel Aviv, which is a fun and vibrant city with international atmosphere.

**To apply:** Interested candidates should apply directly to Dr. Sorkin at [rsorkin@tauex.tau.ac.il](mailto:rsorkin@tauex.tau.ac.il) and provide the following:

- Curriculum vitae
- Cover letter describing your prior experience and motivation to join our lab
- Names and contact information for at least two references