

Professor, Tel Aviv University (Israel)

Email: mfridman@tauex.tau.ac.il

Website: <https://www.fridman-lab.sites.tau.ac.il/>

Social Media: <https://x.com/mifridm>



Research Keywords

Antimicrobial agents, Fluorescent antifungal probes, Drug resistance and tolerance, Subcellular localization of small molecules

Academic Career

B.A. (2000) Molecular Biochemistry, Technion–Israel Institute of Technology; M.Sc. (2001) Organic Chemistry, Technion (advisor: Timor Baasov); Ph.D. (2005) Chemistry, Technion; Postdoctoral Fellow (2005–2008) Harvard University (advisor: Daniel E. Kahne). Tel Aviv University: Senior Lecturer (2008–2016), Associate Professor (2016–2020), Full Professor (2020–present); Coordinator, Joint Chemistry & Biology Program (2009–present).

My group integrates organic chemistry, microbiology, and imaging to elucidate antimicrobial mechanisms and resistance, develop fluorescent probes, and design antifungal and antibacterial agents that overcome resistance and tolerance.

Selected Publications

- Benhamou, R. I., et al. *ACS Chem. Biol.*, 12(8), 1769–1777 (2017).
- Benhamou, R. I., et al. *Angew. Chem. Int. Ed.*, 57(23), 6230–6235 (2018).
- Jaber, Q. Z., et al. *ACS Cent. Sci.*, 6(9), 1698–1712 (2020).
- Logviniuk, D., et al. *J. Am. Chem. Soc.*, 144(13), 5965–5975 (2022).
- Shelef, O., et al. *J. Am. Chem. Soc.*, 146(8), 5263–5273 (2024).
- Koren, V., et al. *JACS Au*, 4(8), 3157–3169 (2024).
- Jospe-Kaufman, M., et al. *Angew. Chem. Int. Ed.*, 63, e202314728 (2024).
- Jospe-Kaufman, M., et al. *Curr. Opin. Chem. Biol.*, 85, 102570 (2025).

Why My Lab?

My lab can offer...

We integrate organic/medicinal chemistry, microbiology/cell biology, and advanced imaging (confocal, live-cell microscopy) to decipher antimicrobial mode-of-action, uptake, and subcellular distribution. Our team develops fluorescent antimicrobial probes and redesigns antifungal/antibacterial agents to overcome resistance. We collaborate across TAU and beyond and leverage campus facilities and interdisciplinary expertise to move rapidly from chemical design to biological mechanism.