You are cordially invited to a Computational Genomics Seminar

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*"*Biomedical foundation models for disease mechanism and drug discovery*"*

Wednesday, August 6, 2025, at 11:15

School of Computer Science, Check Point Building, Room 420

**Abstract:** Recent advances in foundation models have opened new frontiers in biomedical research, enabling scalable, multimodal approaches to understanding disease mechanisms and accelerating drug discovery. In this talk, I will present our development of four distinct biomedical foundation models, each leveraging a different methodological approach and spanning diverse biological modalities—including proteins, small molecules, RNA, and DNA. An open-access version of each model is available, and their utility has been validated through a broad collaboration with the Cleveland Clinic. Together, we have demonstrated their effectiveness across a wide range of use cases, including mechanistic insights, therapeutic target identification, and predictive modeling in translational research.

Host: Prof. Ron Shamir, School of Computer Science, Tel Aviv University