



NAME OF LABORATORY: Laboratory for Cancer Research and Immunotherapy

PI: Prof. Zelig Eshhar PhD

Research Objectives: Aim: To develop a treatment for cancer without attacking healthy cells. Many cancer treatments, while effective, are highly toxic to non-malignant cells as well. The immune system is generally unable to produce a strong reaction against cancer cells, as they exhibit many features of their normal counterparts. Our goal has been to genetically reprogram T-cells by chimeric antigen receptor (CAR) to effectively recognize and eliminate cancerous cells, and to solve the central problem of how and why cancer cells escape the immune response. We are working to further develop CAR T-cell therapy against various cancer types, such as Multiple Myeloma and solid tumors, and to develop an improved methodology for safe and efficient antitumor-specific CAR T-cell.

Main Research topics:

- CAR T-cell therapy against Multiple Myeloma
- CAR T-cell therapy against solid tumors (e.g. breast)
- Improving the safety and efficacy of antitumor CAR T-cells
- Finding new targets for CAR T-cell therapy in additional cancer malignancies

Staff: Prof. Zelig Eshhar PhD, Tova Waks, Scientific Advisor, Dr. Anat Globerson Levin PhD Laboratory Manager and Senior Scientist, Prof. Gideon (Gidi) Gross, PhD. Sabbatical Visitor, Dr David Steiner, PhD Scientist, Tamar Shiloach PhD. Post-Doctoral Fellow, Aviad Pato, PhD Scientist, Moran Rawet-Slobodkin, PhD Post-Doctoral Fellow, Kenneth S. Hollander, Ph.D, Research Assistant, Ziv Itach Abramovitch, MSc. Scientific Assistant

Active Grants:

- National Institute of Health Grant - (ROI)
- The Dotan Center for Research in Hemato-Oncology, Tel Aviv University Cancer Biology Research Center
- Israel Science Fund Grant (**ISF**)
- Kite Pharma Grant

Collaborations:

- Prof. Alexander Levitzki, Ph.D., HUJI
- Dr. Vladimir Vainstein, Hematology, Hadassah Medical Center
- Dr. Najjar, Amer M., MD Anderson
- Prof. Pin Wang, USC
- Kite BioPharma
- Professor Irit Avivi, Hematology, Tel Aviv Sourasky Medical Center

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