



NAME OF LABORATORY: The Microsurgery and Plastic Surgery Laboratory

PI: Dr. Nir Shani PhD

Director Department: Prof. Eyal Gur, MD - Head of the Plastic Surgery Department

Research Objectives: Prevention of Vascularized Composite Allograft (VCA) (face and hand transplants) rejection. The production, characterization and utilization of adipose derived mesenchymal stem cells (ASCs) for cellular therapies.

Main Research topics:

- Characterization of VCA rejection processes
- Development of novel protocols of transplantation tolerance by mixed chimerism
- Establishing a technology for the first whole frozen limb transplantations
- Characterization of the tissue specific nature of ASCs from different fat sources
- Development of novel modalities to improve fat survival after fat transplantation

Staff: Meirav Sela, Senior researcher, Dr. Inna Solodeev, Senior researcher, Dr. Or Friedman MD, Intern in the department, Gal Tirza, MD student, Matan Orgil, MD Student, Mor Cohen, MD Student, Dr. Veronica Vietti Michelina, visiting Intern in the department, Dr. Sivan Zissman MD, Intern in the department.

Collaborations:

- Prof. Peter Rubin, University of Pittsburgh
- Prof. Dov Zipori, Weizmann Institute
- Prof. Smadar Cohen, Ben Gurion University
- Dr. Amir Arav
- Collect Biotechnology
- In Tel Aviv Sourasky Medical Center: Dr. Ilan Volovitz (Neurosurgery laboratory), Prof. Ido Wolf and Dr. Tami Rubinek (Oncology Division), Prof. Anat Loewenstein, Prof. Adi Barak (Ophthalmology Division), Prof. Yehuda Carmeli, (The Division of Epidemiology)

Active Grants:

- **NOFAR** Program for applied academic research in Bio-technology - Ministry of industry, trade and Labor

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