

NAME OF LABORATORY: Surgical Division Research Laboratory

PIs: Dr. Guy Lahat MD; Dr. Nir Lubezky MD; Dr. Ido Nachmany MD, PhD; Dr. Eran Nizri MD, PhD; Dr. Niv Pencovich MD, PhD

Director Department:

- Prof. Joseph M. Klausner, director of surgery division MD
- Dr. Guy Lahat, head of surgery A department MD
- Dr. Ido Nachmany, head of surgery B department MD

Research Objectives:

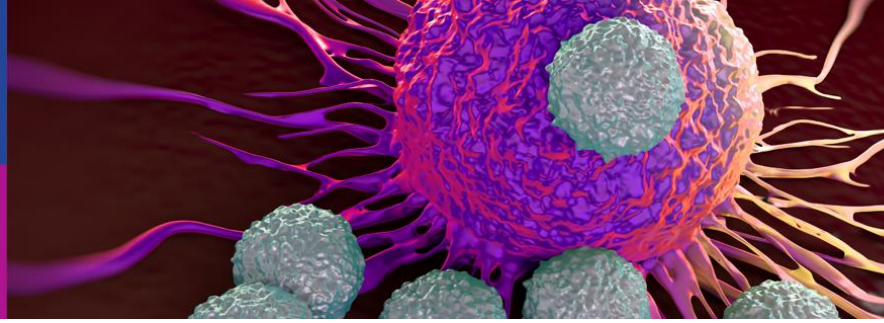
A recently established research lab that gathers several investigators who focus on translational research. All PI's are active surgeons; each has an individual surgical expertise and specific research interests. The division of surgery at the Tel Aviv Sourasky Medical Center (TASMC) is a referral center for pancreatic, sarcoma, and liver surgery. As a high volume center for the treatment of these diseases, the group has access to large clinical databases and clinically annotated tissues, which are being used for various in vitro and in vivo investigations. Our aim is to conduct clinical and basic science research in order to further understand disease patterns and mechanisms, thus, trying to improve diagnosis and treatment outcomes of the patients we operate on. Moreover, the lab is a platform for the development of future academic surgeons, passionate about both research and the field of surgery.

All groups conduct animal studies, tissue culture experiments, use high throughput assays, and perform immunohistochemistry, qRT-PCR, western blotting, FACS analysis, and various other in vitro assays.

Main Research topics:

Dr. Guy Lahat group:

- MiRNA expression patterns in the development and progression of pancreatic cancer
- Molecular pathways associated with pancreatic cancer lymph node metastasis
- Serum biomarkers for inoperability in pancreatic cancer
- Gastric cancer: New insights into the biology of omental spread
- The role of exosomal miRNA in the development of omental metastasis of GI malignancies
- Bacterial induced chemoresistance in soft tissue sarcoma



Dr. Eran Nizri group:

- Liposomal Indocyanine green for intra operative imaging.
- Tumor- immune interactions in the metastatic lymph node.
- Fibroblastic heterogeneity in the desmoplastic process in PDAC.

Dr. Ido Nachmany and Pencovich group:

- The role of Immature myeloid cells in liver regeneration
- Progression of colorectal liver metastasis following liver resection: a role for immature myeloid cells
- Peripheral blood IMCs as a marker for tumor progression
- Molecular characterization of the escape from tumor dormancy

Dr. Nir Lubezky group:

- MiRNA expression patterns in the development and progression of pancreatic tumors .
- Influence of gut microbiome on liver regeneration and liver failure following extended liver resection.

Staff:

- Senior researchers: Dr. Yoel Bogoch PhD, Dr. Nadine Graubardt PhD, Dr. Shelly Loewenstein PhD
- Lab Members: Ella Falk, Shoshi Bar-David, Dr. Noam Goder, Omer Amar, Ekaterina Bondar, Dr. Nitzan Zohar

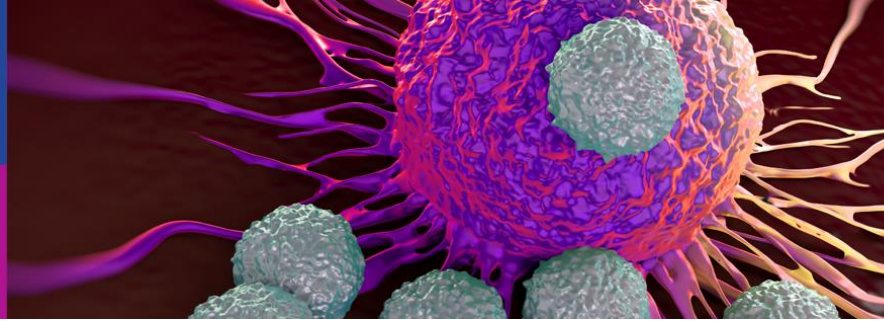
Active Grants:

- **Lahat group:** TASMIC Internal Award for excellence, ICA
- **Nizri group:** Nofar, Internal Award for excellence
- **Pencovich group:** ICA, ICRF, TASMIC internal award
- **Lubezky group:** TASMIC Internal Award for excellence

Collaborations:

Lahat group:

- Dr. Ravid Straussman, Department of Molecular Cell Biology, Faculty of Biology, Weizmann Institute of Science.
- Prof. Dan Peer, Department of Cell Research & Immunology, Faculty of Life Science, Tel Aviv University
- NovellusDx (IL) Ltd.



Nizri group:

- Prof. Shlomo Magdassi,
- Casali Center for Applied Chemistry,
- The Hebrew University of Jerusalem

Lubezky group:

- Dr. Eran Elinav, Department of Immunology, Faculty of Biology, Weizmann Institute of Science

Contact us:

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