

Research & Services | Discovering the Connection Between the Immune Response and Cancer (Yissum)

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### New approaches to developing reagents that block cancers' support mechanism

### **Categories**

Life Sciences and Biotechnology, Medicine

<u>Professor Ben Neriah's Laboratory for Immunology and Cancer Research</u>, The Lautenberg Center for General and Tumor Immunology, Faculty of Medicine

# **Research Capabilities**

- Studying signal transduction pathways incorporating phosphorylation and ubiquitination, in particular the NF-kB and Wnt signaling pathways
- Understanding the regulation of phosphorylation and the destruction machineries of β-catenin, IkB, key regulators of the Wnt and the NF-kB pathways
- Identifying Wnt signaling molecules and their mechanisms of action
- Studying the biological consequences of mutations in these pathways in specific animal models with relevance to human disease, particularly cancer, inflammation and immunity

## **Advantages**

The laboratory, working in close collaboration with Dr. Eli Pikarsky's group, develops proprietary specific animal models for studying the interrelation between the immune system and cancer development.

#### **Research Background**

Research carried out in Professor Ben-Neriah's lab is focused on unravelling the connections between the immune response mechanism and cancer development in order to develop neutralizing reagents that intervene with the immune system and block its support for cancer development.

### **Researcher and Research Interests**

Professor Yinon Ben-Neriah, Chairperson, Immunology and Cancer Research, Faculty of Medicine, also serves as Visiting Professor, Department of Systems Biology, Harvard Medical School. Author of numerous peer-reviewed papers and elected Member of the European Molecular Biology Organization and the European Cancer Forum. Professor Ben-Neriah earned degrees at Tel Aviv University Medical School (M.D.), Weizmann Institute of Science, Rehovot, Israel (Ph.D.) and Whitehead Institute at the Massachusetts Institute of Technology, Cambridge (Post-doc). For his ongoing cancer research, he has been honored with the Teva Founders Prize, George and Eva Klein Prize in Cancer Research, Israel Science Foundation, Landau Prize, and many others.

<u>Dr. Eli Pikarsky</u>, a clinical and experimental pathologist who's main research focus in the lab is neoplastic diseases. Most of the projects that are currently pursued in the lab involve animal models of cancer, using genetically engineered mice and other models of spontaneous carcinogenesis.

### **Available Resources**

Unique animal models of gastrointestinal cancer and mouse models simulating inhibitory drug actions

### **Laboratory Contact**



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