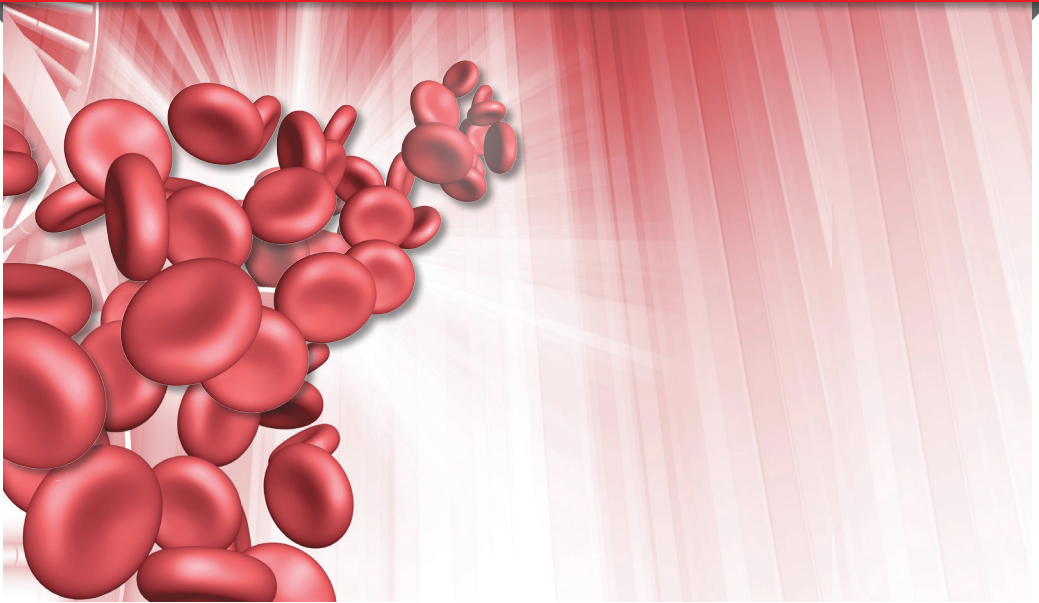


THE FIRST DOTAN INTERNATIONAL SYMPOSIUM

New Approaches for Therapy of Hematological Malignancies

Harnessing Biology to Cure Cancer



13 . 09 . 16

Beit Hatfutsot, Tel-Aviv University

The Dotan Center for research in Hemato-Oncology



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Meeting Coordinator

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Greetings



Dear Colleagues,

Varda and Boaz Dotan have founded a unique center in Tel Aviv University. Their generous donation has fostered advanced research of hematological cancers bringing together physicians and scientists in Tel Aviv University and in the affiliated university hospitals. The ultimate goal of this translational research is to harness biology for the cure of hematological malignancies.

Such research is the focus of the first international Dotan Symposium. Two different approaches for targeting hematological malignancies will be reviewed by esteemed international and Israeli scientists: targeting specific genes and pathways within the malignant cells and targeting the cancer phenotype, mainly by manipulating the immune system. The cure of hematological cancers is likely to be achieved by combining these promising approaches.

Shai Izraeli, MD

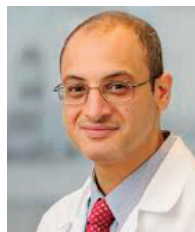
Head, the Varda and Boaz Dotan Center for Hemato-Oncology Research
The Dora and Gregorio Shapiro Professor of Hematological Malignancies
Tel Aviv University and Sheba Medical Center

Conference Agenda

September 13th 2016

- 8:00-8:45 Registration and Reception
- 8:45-9:00 **Greetings**
Yaron Oz, Rector, Tel Aviv University
Ehud Grossman, Dean, Faculty of Medicine, Tel Aviv University
Dina Ben-Yehuda, Chair, Israel Society of Hematology and Blood Transfusion, Jerusalem
Nadir Arber, Head, "Cancer Biology Research Center", Tel Aviv University
Boaz Dotan
- 9:00-11:05 **SESSION I: TARGETING THE GENOTYPE**
Chairs: **Irit Avivi**, Sourasky Medical Center, **Pia Raanani**, Rabin Medical Center
- 9:00-9:25 Understanding and targeting spliceosomal gene mutations in leukemia
Omar Abdel-Wahab, Memorial Sloan Kettering Cancer Center, NY
- 9:25-9:50 Targeting CDK6 – Novel and surprising opportunities in hematological malignancies
Veronika Sexl, University of Veterinary Medicine of Vienna
- 9:50-10:15 CKI-alpha as a therapeutic target in hematological malignancies
Yinon Ben-Neriah, Hebrew University of Jerusalem
- 10:15-10:40 Disordered epigenetics in lymphoid malignancies
Jonathan Licht, University of Florida, FL
- 10:40-11:05 JAK-STAT5 hyperactivation and consequences for leukemia and lymphoma formation
Richard Moriggl, Ludwig Boltzmann Institute for Cancer Research, Vienna
- 11:05-11:30 **Coffee Break**

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- 11:30-13:10 **SESSION II: TARGETING THE PHENOTYPE**
Chairs: **Amos Toren**, Sheba Medical Center, **Sarah Elitzur**,
Schneider Children's Medical Center
- 11:30-11:55 Drug response profiling to identify actionable targets in acute
lymphoblastic leukemia
Jean-Pierre Bourquin, University of Zürich
- 11:55-12:20 From T bodies to CAR T cells
Zelig Eshhar, Sourasky Medical Center
- 12:20-12:45 Escape mechanisms from CD19 targeted immunotherapy
Elad Jacoby, Sheba Medical Center
- 12:45-13:10 Crossing major MHC barriers in hematopoietic stem cell
transplantation and in cell therapy
Yair Reisner, Weizmann Institute of Science
- 13:10-14:00 **Lunch Break**
- 14:00-16:15 **SESSION III TARGETING LYMPHOMAS**
Chairs: **Ora Paltiel**, Hadassa Medical Center, **Yishai Ofran**,
Rambam Medical Center
- 14:00-14:35 **Keynote Lecture**
Treating the tumor and treating the host
Ron Levy, Stanford University, CA
- 14:35-15:00 BCL6 as a therapeutic target for B-cell malignancies
Ari Melnick, Weill Medical College of Cornell University, NY
- 15:00-15:25 Targeting mantle cell lymphoma with RNAi nanomedicine
Dan Peer, Tel Aviv University
- 15:25-15:50 New horizons in Hodgkin Lymphoma
Andreas Engert, University Hospital of Cologne
- 15:50-16:15 Targeting the pre-malignant cell – a fantasy or reality?
Liran Shlush, Weizmann Institute of Science, and Rambam
Medical Center



Omar Abdel-Wahab

Omar Abdel-Wahab, MD, is a physician-scientist focused on understanding the genetic causes of hematological malignancies and developing new therapies targeting these genetic alterations. He is a principal investigator of a cancer genetics laboratory in the Human Oncology and Pathogenesis Program and an Attending Physician on the Leukemia Service in the Department of Medicine at Memorial Sloan Kettering Cancer Center (MSKCC). Dr. Abdel-Wahab grew up in North Carolina and completed undergraduate and medical school degrees at Duke University followed by residency in Internal Medicine at the Massachusetts General Hospital. He then came to MSKCC as a post-doctoral research fellow in 2007 and joined the faculty in 2012. He has previously received a Damon Runyon Clinical Scholar Award, a Clinical Scholar Award from the Leukemia & Lymphoma Society, the Pershing Square Sohn Cancer Alliance Award, and the Joanne Levy Award for Outstanding Achievement from the American Society of Hematology.



Yinon Ben-Neriah

Dr. Yinon Ben-Neriah is professor of Immunology and cancer research at the Lautenberg Center of Immunology of the Hebrew University-Hadassah Medical School in Jerusalem, Israel. He received his MD from Tel Aviv University and PhD from the Weizmann Institute of Science, was a postdoctoral fellow in Dr. David Baltimore's lab at the Whitehead Institute-MIT. His research work focuses on signaling pathways regulating innate immunity and inflammation, particularly in the context of cancer. His lab deciphered key steps in the activation of the NF- κ B and Wnt signaling pathways and studied them in animal models of cancer. Dr. Ben-Neriah is an elected member of the European Molecular Biology Organization (EMBO), a spokesman of the International German Israeli Graduate Student program SignGene, Chair of the advisory board of the BIOSSE Excellence Center of Freiburg University (Germany), and Adjunct Professor in Shanghai Jiao Tong University.



Jean-Pierre Bourquin

Graduate of the University of Zurich Medical School and Life Sciences with an MD-PhD in molecular biology, Jean-Pierre Bourquin trained in pediatrics at the University Children's Hospital Zurich and in pediatric Hematology-Oncology in the Harvard Fellowship Program at the Children's Hospital Boston and Dana Farber Cancer Institute, in Boston, MA, USA. Since 2004 he is heading the leukemia research of the Division of pediatric Oncology at the Children's Hospital Zurich, where he became medical associated director for experimental Oncology and childhood leukemia in 2013. He is a member of the Faculty of Sciences of the University of Zurich, of the steering committee of the Cancer Network Zurich, and of the scientific advisory board of the European Hematology Association. Jean-Pierre Bourquin is the national coordinator of several clinical trials for the treatment of childhood leukemia and principle investigator of early clinical trials that provided access to new therapeutic agents to patients with resistant disease.

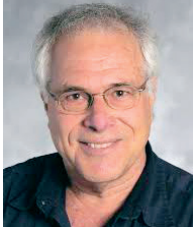
His research group developed an important preclinical research and testing program based on xenotransplantation of primary patient material. The model includes more than several hundred relevant leukemia cases that were treated on international treatment protocols.



Andreas Engert

Andreas Engert, MD, is a professor of internal medicine, hematology, and oncology. He received his medical degree at the Hannover Medical School in Germany and had his medical training at the Hannover Medical School and the University Hospital of Cologne. Between 1988 and 1990 he worked at the Imperial Cancer Research Fund and the Royal Free Hospital in London, United Kingdom, on new immunotherapeutic approaches for cancer. After returning to Cologne, his group focused on developing antibody-based immunotherapy for patients with malignant lymphoma resulting in a number of experimental phase I/II clinical trials.

Professor Engert has published more than 400 original papers in journals such as NEJM, Lancet, Lancet Oncology, Nature Genetics, JCO and others. After serving as secretary of the German Hodgkin Study Group (GHSg) since 1999, he was elected GHSg chairman in 2007. In May 2012 the University of Belgrade awarded Professor Engert an honorary doctorate. In June 2012 he was elected as councilor to the EHA Board of Directors and he joined the EHA Executive Board in June 2015. Professor Engert received a number of awards including the Ludwig-Heilmeyer-Medal, the Arthur-Pappenheim Award, the Research Award of the University of Cologne, the award of the German Cancer Society 2011 and the Paul-Martini-Prize 2013.



Zelig Eshhar

Prof. Zelig Eshhar is a graduate (BSc and MSc) of the Hebrew University of Jerusalem. His doctoral research was undertaken in the Department of Chemical Immunology at the Weizmann Institute of Science, followed by Research Fellowship with Prof. Baruj Benaceraf in the Department of Pathology of Harvard Medical School. Prof. Eshhar joined the Department of Chemical Immunology at the Weizmann Institute of science and served twice as Chairman of Immunology Department (1995-1998, 2002-2005), Currently; Emeritus at the Weizmann Institute, Prof. Eshhar is Chairman of Immunology Research in Tel Aviv Sourasky Medical Center and Professor in the Faculty of Medicine of Tel Aviv University and Sackler School of Medicine.

Prof. Eshhar focuses on molecular recognition in the immune system. He pioneered and has been instrumental in developing a unique immune cell approach that involves genetic modifications of T lymphocytes to produce a specific cell – called today CAR T-cell for cancer therapy. These genetically-engineered T cells have been shown to effectively kill human tumor cells and in pre-clinical systems, Prof. Eshhar established the conditions for a protocol to treat local as well as metastatic disease. Preliminary clinical trials in patients began in 1998, where the T-body approach was proven to be non-toxic. In 2010-2011, researches in the Surgery Branch, NCI, Baylor College and University of Pennsylvania reported on the successful application of Prof. Eshhar's original, adoptive cell transfer approach in phase I/II trials of end-stage patients with B cell lymphomas and leukemias. Today, a large proportion (>45%) of patients who were treated with CAR T-cells/T bodies – genetically engineered versions of their own T cells- resulted in complete remission. Prof. Eshhar's won numerous honors and prizes most recently the most prestigious Israel Prize in Life Sciences for 2015.



Elad Jacoby

Dr. Elad Jacoby is a physician-scientist trained in pediatric hematology and oncology at the Johns Hopkins University and the National Cancer Institute, specializing in cellular immunotherapy. Dr. Jacoby was part of the clinical team treating the first patients in early phase clinical trials using chimeric-antigen-receptor (CAR) T cells targeting CD19, CD22 and GD2 in the pediatric oncology branch of the NCI. He established pre-clinical models of CAR T cells in immunocompetent hosts, studying CAR T cell behavior as well as leukemic resistance patterns. He recently joined the Sheba Medical Center and is leading a clinical trial using CD19 CAR T cells for pediatric B-cell malignancies in Israel, while building a lab-based program focusing on improving immunotherapeutic strategies against leukemia.



Ronald Levy

Dr. Levy is the Robert K. Summy and Helen K. Summy Professor of Medicine and Director of the Lymphoma Program at Stanford University School of Medicine. He is also the Associate Director of Translational Science for the Stanford Cancer Institute. For more than 25 years his research has focused on monoclonal antibodies and the study of malignant lymphoma, currently using the tools of immunology and molecular biology to develop a better understanding of the initiation and progression of the malignant process. He was the first to successfully treat cancer with a monoclonal antibody, and went on to help develop rituximab (Rituxan®) for the treatment of patients' lymphomas. His research concentrates on using lymphocyte receptors as targets for new therapies for lymphoma, and is currently conducting clinical trials of lymphoma vaccines. Dr. Levy has published over 300 articles in the fields of oncology and immunology.

In 1982, Dr. Levy he shared the first Armand Hammer Award for Cancer Research, and was later awarded the Ciba-Geigy/Drew Award in Biomedical Research, the American Society of Clinical Oncology Karnofsky Award, the General Motors Charles Kettering Prize, the Key to the Cure Award by the Cure for Lymphoma Foundation, the Medal of Honor by the American Cancer Society, the Evelyn Hoffman Memorial Award by the Lymphoma Research Foundation of America, the 2004 Damashek Prize from the American Society of Hematology and in 2009 he was elected to the National Academy of Sciences and he won the King Faisal International Prize in Medicine.



Jonathan D. Licht

Jonathan D. Licht, MD, is currently the Director of the University of Florida Health Cancer Center, holding the Marshall E. Rinker, Sr. Foundation and David B. and Leighan R. Rinker Chair. From 2006-2015, Dr. Licht was Professor and Chief of Hematology/Oncology at the Northwestern University and an Associate Director of the Robert

H. Lurie Comprehensive Cancer Center. Earlier in his career he was Professor and Chief of Hematology/Oncology, and Associate Dean for Cancer Programs at the Mount Sinai School of Medicine.

Dr. Licht's laboratory studies aberrant gene regulation as a cause of blood cancers, specifically the role of abnormal function of histone methyl transferases and histone demethylases in diseases such as multiple myeloma, lymphoma and acute lymphocytic leukemia, and is developing small molecule strategies to revert abnormal gene regulation and treat disease.

He is currently the Principal Investigator of a Leukemia and Lymphoma Society Specialized Center of Research Excellence grant studying epigenetic mechanisms in hematological malignancy and a Multiple Myeloma Research Foundation multi-institutional program grant in epigenetics. Additionally he is a co-investigator in the Dana-Farber Cancer Institute Specialized Program of Research Excellence (SPORE) in myeloma and an investigator in the NCI-funded Chicago Region Physical Sciences Oncology Center. Dr. Licht has published nearly 170 original articles, reviews and book chapters and his work has been cited over 16,000 times. Over nearly 25 years Dr. Licht has mentored over 40 graduate students and postdoctoral fellows and 20 faculty members.



Ari M. Melnick

Ari M. Melnick, MD, is Gebroe Family Professor of Hematology/Oncology in the Departments of Medicine and Pharmacology at the Weill Cornell Medical College in New York City. He is chair of the Hematologic Malignancies Program of the Weill Cornell Cancer Center, Director of the Sackler Center for Biomedical and Physical Sciences at Weill

Cornell, Faculty advisor of the Weill Cornell Epigenomics Core Facility. He has chaired a number of international meetings in hematology, cancer and epigenetics. He has authored or co-authored more than 170 published manuscripts in journals such as Nature, Science, Cell, Cancer Cell, Nature Medicine, Nature Immunology and the New England Journal of Medicine.

Dr. Melnick's research is focused on discovering transcriptional and epigenomic mechanisms that drive lymphoid and myeloid neoplasms and harnessing these mechanisms for development of novel drugs and therapeutic regimens for cancer patients. Dr. Melnick uses the tools of systems biology and high throughout genomics to explore how the epigenome is perturbed in human patients with disease. Along these lines he performed the first organized and comprehensive epigenome mapping in human disease.

Dr. Melnick was director of the Mount Sinai School of Medicine Fellowship program and the Weill Cornell Research Track Residency Program. He has been a member of study sections from the NIH and several foundations and he also mentors a number of the junior faculty at Cornell across various departments and coaches them on grant writing, research projects and publication strategies. His trainees have held K awards, NRSA grants, and Foundation career development awards from many sources.



Richard Moriggl

Dr. Moriggl studied biotechnology in Germany and he did his PhD in 1997 working on cytokine signaling with Prof. Groner, FMI, Basel, Switzerland and Institute of Experimental Cancer Research, Freiburg, Germany. After a postdoctoral fellowship at St. Jude Children's Research Hospital in Memphis, USA, in biochemistry, immunology and JAK-STAT signaling with Prof. Ihle he moved to the group of Prof. Beug, Institute for Molecular Pathology, in Vienna to work on hematopoiesis and hematopoietic cancer development. The group of Dr. Moriggl studies mainly hematopoietic cancer, melanoma, sarcoma, colon and liver cancer development or metabolic consequences using as model system transgenic mice. The main focus is work on the JAK-STAT core cancer pathway either by loss or gain of function approach. Dr. Moriggl served as author in >115 peer reviewed publications. Dr. Moriggl heads the LBI-CR since 2005, which performs basic and translational cancer research with a main focus on the generation and utilization of gene targeted mouse models, the exploration of new therapies and comparative pathology. RM was appointed in 2014 by the two medical research performing universities as Prof. for Functional Cancer Genomics.



Dan Peer

Dan Peer is a Professor and the Director of the Laboratory of Precision NanoMedicine at Tel Aviv University (TAU). He is the Director of a national nanomedicine initiative project. He is also the Director of Leona M. and Harry B. Helmsley Nanotechnology Research Fund. Prof. Peer's work was among the first to demonstrate systemic delivery of RNAi molecules using targeted nanocarriers to the immune system and he pioneered the use of RNA interference (RNAi) for in vivo validation of new drug targets within the immune system that has enormous implications in Cancer and inflammation. Prof. Peer has more than 50 pending and granted patents. Some of them have been licensed to several pharmaceutical companies and one is currently under registration (as a new biological drug in inflammatory bowel disease). In addition, based on his work, four spin-off companies were generated Leuko Biosciences, Quiet Therapeutics, SEPL Pharma and ART Bioscience aiming to bring personalized nanomedicine into clinical practice. Prof. Peer a Member of the *Israel Young Academy of Sciences*.



Yair Reisner

Professor Reisner earned a BSc degree from the Hebrew University of Jerusalem in 1972, an MSc from the University of California at Berkeley in 1974, and a PhD from the Weizmann Institute of Science in 1978. He then spent several years as a research associate at the Memorial Sloan-Kettering Cancer Center in New York. He joined the

Weizmann Institute in 1981, and served as head of the Immunology Department between 2005-2014.

As of 2005 he serves as an elected member of the review panel for stem cell research in the State of California, USA.

Between 2005-2007 Prof Reisner served as the president of Israel Stem Cell Society.

He served as the associate editor of *Experimental Hematology* between 2004- 2009 and he is currently associate editor of *Frontiers in Alloimmunity Transplantation*, Deputy Editor of *Bone Marrow Transplantation Journal* and F1000 member of the Immunomodulation Section.



Veronika Sexl

Veronika Sexl studied medicine at the University of Vienna. After a postdoctoral fellowship at St. Jude Children's Research Hospital in Memphis, TN with C. Sherr and J. Ihle she started her own research group in Vienna in 2001 at the Medical University of Vienna in the Department of Pharmacology. In 2007 she became full Professor for

“Signal transduction and molecular targeted therapies” at the Medical University of Vienna. 2010 she was recruited by the University of Veterinary Medicine in Vienna, where she holds the Chair of Pharmacology and Toxicology.

Her main research focusses on signalling networks in leukemogenesis maintaining disease and regulating tumor immune surveillance. The emphasis of her work is JAK-STAT signaling and a novel non-canonical function of the cell cycle regulator CDK6 in transcription. Her research group is also interested in NK- cell biology to develop therapies to improve NK-cell mediated tumor surveillance in leukemia.

Veronika Sexl has been part of the EHA grant committee 2013-2015 and takes part in the TRTH training courses. She also serves in the editorial board of “Blood” since 2015. Veronika Sexl is the Austrian delegate for the committee of EMBO/EMBL and serves in the advisory board of the Medical University of Vienna.

She has authored more than 100 publications in peer-reviewed journals including *Blood*, *Cancer Cell*, *Immunity*, *JCI*, *Leukemia* and *PNAS*. Veronika Sexl and her students have received several national awards for their work on signaling in leukemia.



Liran Shlush

Dr. Liran Shlush received his BSc with honors from the Technion Institute of Technology Haifa Israel in 1996. He completed his medical degree also in the Technion and trained in Internal Medicine at the Rambam Healthcare Campus Haifa Israel. Dr. Shlush completed a PhD in population genetics in 2012, at the Technion Faculty of Medicine Haifa Israel under the supervision of Prof. Karl Skorecki. He was a post-doctoral fellow in the laboratory of Dr. John Dick in Toronto from 2012-2014. During this time he published a seminal paper in Nature on the early evolution of leukemia, a paper that was selected by the editors of Nature Medicine as one of the most notable advancements in medicine for the year of 2014. Dr. Shlush is currently a senior scientist at the immunology department at the WIS and a visiting physician in the leukemia group at Princess Margaret Cancer Centre, Toronto, and the Hematology department at the Rambam Healthcare Campus. Dr. Shlush's research focuses on the evolution of hematological malignancies with special interest in the early stages of leukemia.

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המרכז לחקר המטואונקולוגי
על שם ורדה ובעז דותן

