The 19th
BIENNIAL CANCER BIOLOGY RESEARCH CENTER MEETING
May 2023

SCIENTIFIC PROGRAM
Wednesday May 10th

13:30-14:30  Registration, Reception, and Exhibition

14:30-14:45  Opening Session

OPENING AND GREETINGS

Prof. Ronit Satchi-Fainaro  
Director, Cancer Biology Research Center

Prof. Karen Avraham  
Dean, Sackler Faculty of Medicine

Prof. Abdussalam Azem  
Dean, George S. Wise Faculty of Life Sciences

Mr. Moshe Bar-Haim  
Director, Israel Cancer Association

14:45-15:25  Session I

KEYNOTE LECTURE

Sponsored by Merck

Chair: Ronit Satchi-Fainaro  
Sackler Faculty of Medicine

14:45-15:25  Gabriele Bergers  
VIB KU Leuven, Belgium  
A vascular perspective to aid anti-tumor immunity
19th CBRC Biennial Conference

Wednesday May 10th

15:30–16:15 Session II

ANTIBODY-BASED CANCER THERAPEUTICS

Chairs: Uri Rozovski, Rabin Medical Center & Yoni Haitin, Sackler Faculty of Medicine

15:30–15:45 Adi Barzel
George S. Wise Faculty of Life Sciences
In Vivo engineering of T cells and B cells

15:45–16:00 Itai Benhar
George S. Wise Faculty of Life Sciences
Antibody–targeted lipid–nanoparticle mediated inhibition of the GPCR RXFP1 signaling pathway as a therapeutic approach for ovarian cancer

16:00–16:15 Gal Markel
Rabin Medical Center
Inherent immune resistance mechanisms in melanoma

16:15–17:15 Session III

THERAPEUTICS AND DIAGNOSTICS

Sponsored by AstraZeneca

Chairs: Annat Raiter, Rabin Medical Center & Dan Grisaru, Tel Aviv Sourasky Medical Center

16:15–16:30 Marcelo Ehrlich
George S. Wise Faculty of Life Sciences
Exploiting cancer-induced and therapy-augmented defects to antiviral responses for virus-mediated killing of cancer cells

16:30–16:45 Dov Hershkovitz
Tel Aviv Sourasky Medical Center
Liquid biopsy for cancer diagnosis and monitoring

16:45–17:00 Shamgar Ben–Eliyahu
Sagol School of Neuroscience
Improving the odds for colorectal cancer patients: Perioperative inhibition of COX-2 and B-adrenergic signaling improves tumor biomarkers of metastasis and 5-year disease-free-survival
17:00-17:15  Ilan Tsarfaty  
*Sackler Faculty of Medicine*  
Multi-omics systems biology as a novel tool for precision medicine: MET/p53/BRCA1 as models

17:15-17:45 Coffee break and visit the exhibition

17:45-18:15 **Session IV**

**FLASH TALKS**

*Sponsored by Merck*

**Chairs:** Shelly Loewenstein, Tel Aviv Sourasky Medical Center & Guy Lahat, Tel Aviv Sourasky Medical Center

17:45-17:48  Nofar Erlichman  
*George S. Wise Faculty of Life Sciences*  
Tumor cell-autonomous and PD-1-induced activities of PD-L1 in breast cancer

17:48-17:51  Eilam Yeini  
*Sackler Faculty of Medicine*  
P-Selectin axis plays a key role in microglia immunophenotype and glioblastoma progression

17:51-17:54  Emily Boxer  
*George S. Wise Faculty of Life Sciences*  
Boosting CAR T cell responses in glioblastoma by remodeling the extracellular matrix

17:54-17:57  Inbal Reuveni  
*George S. Wise Faculty of Life Sciences*  
Site-specific in vivo T cell engineering to express chimeric antigen receptors

17:57-18:00  Rana Masri  
*Sackler Faculty of Medicine*  
Studying the effect of fusobacterium nucleatum bacteria on the Wnt signaling pathway
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<tr>
<th>Time</th>
<th>Speaker</th>
<th>Affiliation</th>
<th>Title</th>
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<tbody>
<tr>
<td>18:00-18:03</td>
<td>George Abu Khadra</td>
<td>Sackler Faculty of Medicine</td>
<td>The interplay between MET, Wnt and their signaling modifiers control cell motility and metastasis</td>
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<tr>
<td>18:03-18:06</td>
<td>Tal Caller</td>
<td>Sheba Medical Center</td>
<td>Small extracellular vesicles from failing hearts accelerate tumor growth</td>
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<td>18:06-18:09</td>
<td>Nahida Sakis</td>
<td>Sagol School of Neuroscience and School of Psychological Sciences</td>
<td>Perioperative psychological stress role in facilitating pro-metastatic processes</td>
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<td>18:09-18:12</td>
<td>Johanna Zerbib</td>
<td>Sackler Faculty of Medicine</td>
<td>Aneuploid cells depend on multiple RNA and protein degradation pathways to compensate for their karyotype</td>
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<td>18:15-19:00</td>
<td>Session V</td>
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<td>TUMOR MICROENVIRONMENT</td>
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<tr>
<td>18:15-18:30</td>
<td>Neta Erez</td>
<td>Sacker Faculty of Medicine</td>
<td>Stromal and immune plasticity shape the metastatic microenvironment</td>
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<tr>
<td>18:30-18:45</td>
<td>Adit Ben-Baruch</td>
<td>George S. Wise Faculty of Life Sciences</td>
<td>TME-driven generation of cancer stem cells in breast cancer: Unconventional roles for STAT3 and p65</td>
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</table>
**Wednesday May 10th**

18:45–19:00  **Issac Witz**  
*George S. Wise Faculty of Life Sciences*  
Hemoglobin-derived proteins/peptides function as an innate defense mechanism against cancer cells  

19:00–19:40  **Poster Session**

18:30–20:30  **Dinner**

21:00  **Lior Suchard**

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**Thursday May 11th**

05:00–07:45  **Sunrise guided birding tour in a Safari wagon**

07:30–08:45  **Breakfast**

08:45–10:30  **Session VI**  
**Emerging Therapies**  
Sponsored by  
AstraZeneca

**Chairs:**  
Osnat Ashur-Fabian, Meir Medical Center & Ido Wolf, Tel Aviv Sourasky Medical Center

09:00–09:15  **Yaron Carmi**  
*Sackler Faculty of Medicine*  
From basic discovery to cell engineering—endowing T cells with ADCC abilities to treat cancer

09:15–09:30  **Tali Ilovitsh**  
*The Iby and Aladar Fleischman Faculty of Engineering*  
Bubbles-enhanced ultrasound mechanotherapy for noninvasive cancer surgery
Thursday May 11th

09:30-09:45  **Talia Golan**  
*Sheba Medical Center*  
Spectrum of response to platinum and PARPi in HR-deficient pancreatic cancer

09:45-10:00  **Ra’anan Berger**  
*Sheba Medical Center*  
Enabling new technologies in precision and individualized oncology

10:00-10:15  **Ido Wolf**  
*Tel Aviv Sourasky Medical Center*  
From genomic alteration to metastases formation, or how did these cancer cell get to the brain?

10:15-10:30  **Michal Besser**  
*Rabin medical Center*  
Cell and gene therapy

10:30-11:00  Coffee break and visit the exhibition

11:00-12:30  Session VII  
PEDIATRIC ONCOLOGY  
Sponsored by NOVARTIS  
**Chairs:** Dinorah Friedmann-Morvinski, George S. Wise Faculty of Life Sciences & Helen Toledano, Schneider Children’s Medical Center

11:00-11:15  **Dinorah Friedmann-Morvinski**  
*George S. Wise Faculty of Life Sciences*  
Utilizing preclinical models to develop targeted therapies for pediatric brain tumors

11:15-11:30  **Ronit Elhasid**  
*Dana Medical Center, Tel Aviv Medical Center*  
Suggested role for NETs formation in Ewing sarcoma immune microenvironment and response to chemotherapy

11:30-11:45  **Benny Dekel**  
*Sheba Medical Center*  
Repurposing Alzheimer’s drugs to pediatric oncology
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<th>Time</th>
<th>Speaker</th>
<th>Institution</th>
<th>Topic</th>
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<tr>
<td>11:45-12:00</td>
<td><strong>Helen Toledano</strong></td>
<td><em>Schneider Children’s Medical Center</em></td>
<td>From bench to bedside: targeted therapy for pediatric solid/CNS tumors</td>
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<td>12:00-12:15</td>
<td><strong>Esther Berko</strong></td>
<td><em>Schneider Children’s Medical Center of Israel</em></td>
<td>Circulating tumor DNA to guide targeted therapy in neuroblastoma</td>
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<td>12:15-12:30</td>
<td><strong>Ruty Shai</strong></td>
<td><em>Sheba Medical Center</em></td>
<td>Mastering the master regulators in pediatric brain tumors</td>
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<td>12:30-13:00</td>
<td><strong>Noam Shomron</strong></td>
<td><em>Sackler Faculty of Medicine</em></td>
<td>DNA and RNA as insights for cancer development</td>
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<td>12:45-13:00</td>
<td><strong>Tamir Tuller</strong></td>
<td><em>The Iby and Aladar Fleischman Faculty of Engineering</em></td>
<td>Deciphering and targeting silent and seemingly-silent cancer mutations using computational models</td>
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<td>13:00-13:15</td>
<td><strong>Asaf Madi</strong></td>
<td><em>Sackler Faculty of Medicine</em></td>
<td>Immune cell interactions in GBM</td>
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### Thursday May 11th

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<tr>
<td>13:15-13:30</td>
<td><strong>Merav Cohen</strong></td>
<td>Sackler Faculty of Medicine</td>
<td>Dissecting the immune controlled signaling networks of the tumor microenvironment</td>
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<td>13:30-14:45</td>
<td>Lunch</td>
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<td>15:00-16:30</td>
<td><strong>Session IX</strong></td>
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<td><strong>HEMATO-ONCOLGY</strong></td>
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<td><strong>Chairs:</strong> Shai Izraeli, Schneider Children’s Medical Center &amp; Drorit Neumann, Sackler Faculty of Medicine</td>
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<td>15:00-15:15</td>
<td><strong>Adi Zoref-Lorenz</strong></td>
<td>Meir Medical Center</td>
<td>Immune activation in hematologic malignancies- a friend or a foe?</td>
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<td>15:15-15:30</td>
<td><strong>Elad Jacoby</strong></td>
<td>Sheba Medical Center</td>
<td>Metabolic conditioning of CAR-T cells</td>
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<tr>
<td>15:30-15:45</td>
<td><strong>Michael Milyavsky</strong></td>
<td>Sackler Faculty of Medicine</td>
<td>Regulation of normal and leukemic blood stem cells survival by the bone marrow microenvironment</td>
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<tr>
<td>15:45-16:00</td>
<td><strong>Shai Izraeli</strong></td>
<td>Schneider Children’s Medical Center</td>
<td>Leukemia - from bedside to bench and back</td>
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<td>16:00-16:15</td>
<td><strong>Ofir Wolach</strong></td>
<td>Rabin Medical Center</td>
<td>Casting a NET on hematological malignancies</td>
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<tr>
<td>16:15-16:30</td>
<td><strong>Drorit Neumann</strong></td>
<td>Sackler Faculty of Medicine</td>
<td>Erythropoietin in the osteo-hematological niche</td>
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Thursday May 11th

16:30-17:00 Session X

FLASH TALKS

Sponsored by Merck

Chairs: Moshe Giladi, Tel Aviv Sourasky Medical Center & Amir Sonnenblick, Tel Aviv Sourasky Medical Center

16:30-16:33 Itai Meir Caspit
George S. Wise Faculty of Life Sciences
The interplay of glioma-associated blood vessels with microglia and monocyte-derive macrophages

16:33-16:36 Lea Monteran
Sackler Faculty of Medicine
Characterizing the evolving immune microenvironment during breast cancer bone metastasis progression

16:36-16:39 Hagai Levi
Raymond and Beverly Sackler Faculty of Exact Sciences
Polygenic prediction models for early breast cancer detection on diverse ethnic groups in Israel

16:39-16:42 Sahar Israeli Dangoor
Sackler Faculty of Medicine
CCL2-CCR2/4 axis has a crucial role in astrocyte-breast cancer interplay promoting brain metastasis

16:42-16:45 Orit Adir
George S. Wise Faculty of Life Sciences
Microglial Junb promotes the malignant phenotype of melanoma brain metastasis cells

16:45-16:48 Iris Kamer
Sheba Medical Center
Establishment ex-vivo culture from pleural effusions of metastatic-NSCLC as a model to ICIs response
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<td>16:48–16:51</td>
<td>Dikla Atias</td>
<td>Sheba Medical Center</td>
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<td>The stromal role in BRCA–associated pancreatic cancer therapeutic resistance</td>
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<td>16:51–16:54</td>
<td>Daniella Vaskovich–Koubi</td>
<td>Sackler Faculty of Medicine</td>
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<td>Elucidating the mechanism by which a nano–vaccine sensitizes colorectal cancer to immunotherapy</td>
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<td>16:54–16:57</td>
<td>Adi Rubin</td>
<td>Tel Aviv Sourasky Medical Center</td>
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<td>Obesity and gastric cancer aggressiveness – a new link</td>
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<td>16:57–17:00</td>
<td>Siva Sai Muddineni</td>
<td>Sackler Faculty of Medicine</td>
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<td>CREB1–MCL1 axis protects human hematopoietic stem cells from DNA–damage induced apoptosis</td>
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<td>17:00–17:20</td>
<td>Coffee break and visit the exhibition</td>
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<td>17:20–18:00</td>
<td>Session XI</td>
<td>KEYNOTE LECTURE</td>
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<td>Edmond J. Safra Center for Bioinformatics</td>
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<td>Chair: Elhanan Borenstein</td>
<td>Raymond &amp; Beverly Sackler Faculty of Exact Sciences</td>
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<td>Eytan Ruppin, Center for Cancer Research, National Cancer Institute</td>
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<td>Next generation transcriptomics–based precision oncology</td>
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<td>18:00–18:30</td>
<td>Session XII</td>
<td>THE PATIENT’S AND INDUSTRY’S PERSPECTIVES</td>
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<td>Chair: Ronit Satchi–Fainaro</td>
<td>Sackler Faculty of Medicine</td>
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<td>Mati Gill</td>
<td>CEO, AION Labs</td>
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<td>A new model for tech and bio co–development</td>
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Thursday May 11th

18:15-18:30  **Tamir Gilat**  
Chairman, Israel Cancer Research Fund (ICRF)  
Outliving your expiration date—A human rat lab

18:30-19:30  Poster Session

18:30-20:30  Dinner

21:00  MUSIC & DANCING

Friday May 12th

07:30-08:30  Breakfast

08:30-10:00  **Session XIII**
**MOLECULAR–CLINICAL TUMOR BOARD**
Chair and Moderator: **Raya Leibowitz**, Shamir Medical Center

08:30-09:15  **Topic 1 – Targeting signaling pathways in cancer**

Sponsored by **Bristol Myers Squibb**

**Ronen Brenner**, Wolfson Medical Center  
BRAF & MEK inhibition – is it a real BRAF mutated tissue agnostic treatment?

**Nirit Yarom**, Shamir Medical Center  
The long and winding road towards K-ras inhibition in solid tumor

**Hagit Eldar–Finkelman**  
Sackler Faculty of Medicine  
Outsmarting cancer – developing novel TKIs as means to overcome drug resistance in leukemia

**Rina Rosin–Arbesfeld**  
Sackler Faculty of Medicine  
Targeting Wnt signaling – can we cure cancer with antibiotics?
Friday May 12th

Chair and Moderator: Raya Leibowitz, Shamir Medical Center

09:15–10:00 Topic 2 - Emerging immunotherapeutic approaches
Sponsored by AstraZeneca

**Ronnie Shapira-Frommer**
Sheba Medical Center
Overcoming immunotherapy resistance by tyrosine kinase and checkpoint blockade combination

**Jair Bar**
Sheba Medical Center
Checkpoint inhibitors in cancer immunotherapy – have we neglected the B–cells so far?

**Ayelet Avraham**
Shamir Medical Center
Getting better with a little help from a costimulatory friend? Deciphering the spatial and cellular expression of TNFSF4 (OX40L) in melanoma tumors

10:00–10:40 Session XIV

KEYNOTE LECTURE

**Chair:** Yuval Ebenstein
Raymond & Beverly Sackler Faculty of Exact Sciences

**Andrew P. Feinberg**
Director, Center for Epigenetics, John Hopkins University
Epigenetic plasticity in cancer

10:40–11:00 Coffee break and visit the exhibition
Friday May 12th

11:00-11:45  Session XV

MECHANISMS OF CANCER BIOLOGY

Chairs: Liat Drucker
Meir Medical Center

11:00-11:15  Yaara Oren
Sackler Faculty of Medicine
Beyond Darwin: understanding cancer persister cells

11:15-11:30  Uri Ben-David
Sackler Faculty of Medicine
Identifying vulnerabilities of aneuploid cells: Genomic and functional approaches

11:30-11:45  Yona Keisari
Sackler Faculty of Medicine
An intratumoral alpha radiation device and immunotherapy: a breakthrough in cancer treatment

11:45-12:30  Session XVI

BRAIN NEOPLASMS

Chairs: Ilan Voloviz, Tel Aviv Sourasky Medical Center & Rachel Grossman, Tel Aviv Sourasky Medical Center

11:45-12:00  Lior Mayo
George S. Wise Faculty of Life Science
Shutting down glioblastoma: how astrocytes control tumor progression

12:00-12:15  Ilan Voloviz
Tel Aviv Sourasky Medical Center
Immune – cell frequencies provide the strongest survival prognosticators for glioblastoma—an immune desert

12:15-12:30  Reuven Stein
George S. Wise Faculty of Life Sciences
Diverse spatial distribution of microglia and monocytes-derived macrophages in different brain tumors
Friday May 12th

12:30-13:15 Session XVII

TECHNOLOGICAL INNOVATION IN CANCER

Chairs: Leor Zach
Tel Aviv Sourasky Medical Center

12:30-12:45 Eric Shifrut, George S. Wise Faculty of Life Sciences, Sackler Faculty of Medicine & Tel Aviv Sourasky Medical Center
CRISPR discovery platforms for human T cell therapies

12:45-13:00 Vered Padler-Karavani
George S. Wise Faculty of Life Science
Aiming at the sweet spot of cancer

13:00-13:15 Yuval Ebenstein
Raymond & Beverly Sackler Faculty of Exact Sciences
Epigenetic transformations precede genetic aberrations in early-stage kidney cancer

13:15-13:30 Awards ceremony and closing remarks
Prof. Ronit Satchi-Fainaro