



52 Vanderbilt Avenue, Suite 1510, New York, NY 10017-3834

Tel 212.969.9800 • fax 212.969.9822 • toll free 888.654.ICRF (4273)

e-mail mail@icrfny.org • web site www.icrfonline.org

RESEARCH AWARDS 2018-2019

For the 2018 / 2019 funding year, ICRF is supporting 77 grants at a total of \$4,234,166. This is broken down as follows:

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| 2 International Collaboration Grants | 2 Brause Family Initiative for Quality of Life Grants |
| 5 L. & S. Mark Initiative for Ovarian/Uterine Cancer | 1 B. S. Goodman Endowed RCDA for Pancreatic Cancer |
| 10 Acceleration Grants | 10 Research Career Development Awards (RCDAs) |
| 13 Research Professorships | 22 Project Grants |
| 2 Clinical Research Career Development Awards | 2 Geshet Awards |
| 4 Jacki and Bruce Barron Cancer Research Scholars' Program Grants <i>(A Partnership between ICRF and City of Hope)</i> | 4 Postdoctoral Fellowship |

With the 2018 / 2019 grants, ICRF's funding has now reached 2,426 grants totaling \$68,150,666.

Among the areas of cancer research directly sponsored by ICRF in 2018 / 2019 are: studies in, brain, breast, colorectal, gastrointestinal, head and neck, lung, ovarian and uterine, pancreatic, pediatric, renal, and skin cancers; anticancer drug mechanisms, drug resistance, and targeted therapy; pain management and quality of life issues; blood cancers, such as leukemia and lymphoma, and tumor blood vessel growth (angiogenesis); cancer stem cells and cellular reprogramming; expression, regulation, and mutation of genes; tumor viruses; tumor metastasis; inflammation and cancer; immunology and immunotherapy; protein interactions; oncogenes and tumor suppressor genes, such as p53; cell-cycle regulation and the tumor microenvironment, programmed cell death (apoptosis), and the DNA damage response.

AWARD	AWARDEE	INSTITUTION	PROJECT TITLE	TOPIC
<p>JACKI & BRUCE BARRON CANCER RESEARCH SCHOLARS' PROGRAM – <i>(A Partnership between ICRF and City of Hope)</i></p> <p>INTERNATIONAL COLLABORATION GRANTS</p>	<p>Rami Aqeilan, PhD (PI) and Victoria Seewaldt, MD (Co-PI)</p>	<p>Hebrew University/ Hadassah Medical School and City of Hope</p>	<p><i>Dissecting the Molecular Function of WWOX in Antagonizing Aerobic Glycolysis in TNBC</i></p>	<p>Triple Negative Breast Cancer</p>
	<p>Shai Izraeli, MD (PI) and Markus Muschen, MD, PhD (Co-PI)</p>	<p>Chaim Sheba Medical Center and City of Hope</p>	<p><i>Oncogenic Feedback Signaling in "Ph-like" ALL: Mechanisms and Therapeutic Opportunities</i></p>	<p>Pediatric Leukemia</p>
	<p>Gad Rennert, MD, PhD (PI) and Jeffrey Weitzel, MD (Co-PI)</p>	<p>Carmel Medical Center and City of Hope</p>	<p><i>Cancer Susceptibility Mutations in Young Israeli Breast Cancer (BC) Patients</i></p>	<p>Breast Cancer</p>
	<p>Ravid Straussman, MD, PhD (PI) and Dan Raz, MD (Co-PI)</p>	<p>Weizmann Institute of Science and City of Hope</p>	<p><i>The Effect of Intra-Tumor Bacteria on the Sensitivity of NSCLC to EGFR and ALK Inhibitors</i></p>	<p>Non-Small Cell Lung Cancer</p>
<p>INTERNATIONAL COLLABORATION GRANTS</p>	<p>Ittai Ben-Porath, PhD (PI) and Francis Rodier, PhD (Co-PI)</p>	<p>Hebrew University/ Hadassah Medical School and Université de Montréal</p>	<p><i>Senescence of the Tumor Niche – Effects on Cancer Growth and Drug Response</i></p>	<p>Inhibiting Tumor Growth by Targeting Blood Vessels</p>
	<p>Sol Efroni, PhD (PI) and Francisco Quintana, PhD (Co-PI)</p>	<p>Bar-Ilan University and Brigham & Women's Hospital</p>	<p><i>miR-29b and miR-9 to Target Glioblastoma Multiform via AHR and p38 Network Modulation</i></p>	<p>Brain Tumors</p>
<p>BRAUSE FAMILY INITIATIVE FOR QUALITY OF LIFE</p>	<p>Yafit Gilboa, PhD</p>	<p>Hebrew University of Jerusalem</p>	<p><i>Combined Model of Online Remote Interventions for Cancer-Related Cognitive Decline</i></p>	<p>Preventing Cancer-Related Cognitive Decline</p>
	<p>Avi Priel, PhD</p>	<p>Hebrew University of Jerusalem</p>	<p><i>Non-Opioid Specific Analgesics for Cancer Pain: Modulating the Pain Receptor TRPV1</i></p>	<p>Developing Non-Opioid Treatments for Cancer Pain</p>

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LEN & SUSAN MARK INITIATIVE FOR OVARIAN AND UTERINE/MMMT CANCERS	Rotem Karni, PhD	Hebrew University of Jerusalem	<i>The Role of FOXL2 in Ovarian Cancer Progression</i>	Ovarian Cancer
	Ruth Perets, MD, PhD	Rambam Health Care Campus	<i>Novel Structural Based Mechanism of Targeting Ovarian and Endometrial Carcinomas</i>	Ovarian and Endometrial Cancers
	Varda Rotter, PhD	Weizmann Institute of Science	<i>Ovarian Cancer Therapeutics Mediated by Modulation of Mutant p53 Protein into Wild Type Conformation</i>	Ovarian Cancer
	Itay Tirosh, PhD	Weizmann Institute of Science	<i>Single Cell Analysis of Ovarian and Uterine Cancers</i>	Ovarian and Uterine Cancers
	Yosef Yarden, PhD	Weizmann Institute of Science	<i>Towards Immunotherapy of Ovarian Cancer: Disabling the Immuno-Suppressive Microenvironment</i>	Developing Immunotherapy for Ovarian Cancer
ACCELERATION GRANTS	Nabieh Ayoub, PhD	Technion, Israel Institute of Technology	<i>Why Splicing Factors show Transient Accumulation at DNA Damage Sites: The Example of RBM6 Protein</i>	Understanding the Function of Tumor Suppressor RBM6 in DNA Repair
	Limor Broday, PhD	Tel Aviv University	<i>Elucidating the Role of the Upstream Partner in Oncogenic ALK Gene Fusions</i>	Cell Signaling, Genetics and Genomics, Model Organisms, Lung Cancer
	Benjamin Dekel, PhD	Chaim Sheba Medical Center	<i>Genetic Engineering Based Novel Therapeutic Approaches Against Wilms' Tumor</i>	Cancer Stem Cells, Pediatric Renal Cancers
	Yaron Fuchs, PhD	Technion, Israel Institute of Technology	<i>Caspase-3 as a Novel Therapeutic Target for Skin Cancer Therapy</i>	Skin Cancer

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ACCELERATION GRANTS <i>(continued)</i>	Naama Geva-Zatorsky, PhD	Technion, Israel Institute of Technology	<i>Prevention of Cancer by Gut Bacteriophages</i>	Colorectal Cancer, Gastrointestinal Cancers, Inflammation and Cancer
	Hava Gil-Henn, PhD	Bar-Ilan University	<i>Elucidating Metastatic Signaling Pathways by Using a Phospho-Proteogenomic Approach</i>	Breast Cancer Metastasis
	Bella Kaufman, MD	Chaim Sheba Medical Center	<i>The Role of Intestinal Microbiota in Breast Cancer Progression and Therapy</i>	Breast Cancer
	Erez Levanon, PhD	Bar-Ilan University	<i>Retrotransposition and Somatic Processed Pseudogenes in Human Cancer</i>	Acquired Genetic Mutations due to Viral Remnants
	Norman Metanis, PhD	Hebrew University of Jerusalem	<i>Developing Potent Inhibitors against Mutants of K-Ras Protein</i>	A New Way of Studying the K-Ras Protein
	Yitzhak Pilpel, PhD	Weizmann Institute of Science	<i>Characterizing the Spectrum and Mechanisms of Phenotypic Errors in Cancer</i>	Molecular Genetics and Computational Biology
PROFESSORSHIPS	Michal Baniyash, PhD	Hebrew University of Jerusalem	<i>The Role of Immunosuppressive Cells and Gut Microbiota in Inflammatory Bowel Disease and Colorectal Cancer: Clinical Implications</i>	Colorectal Cancer
	Yinon Ben-Neriah, MD, PhD	Hebrew University/ Hadassah Medical School	<i>CKI Regulation in Normal and Malignant Stem Cells</i>	Colorectal Cancer and Cancer Stem Cells
	Yehudit Bergman, PhD	Hebrew University/ Hadassah Medical School	<i>The Role of Epigenetic Regulation in Stem Cells and Cancer</i>	Cancer Stem Cells, Inflammation and Cancer, Breast and Colon Cancer
	Howard Cedar, MD, PhD	Hebrew University/ Hadassah Medical School	<i>Regulation of Gene Expression in Animal Cells</i>	Molecular Genetics

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PROFESSORSHIPS <i>(continued)</i>	Aaron Ciechanover, MD, DSc	Technion, Israel Institute of Technology	<i>Unraveling the Tumor-Suppressing Mechanisms Involved in Ubiquitin-Mediated Activation of NF-kappaB</i>	The Ubiquitin System and the NF-κB Protein and How They are Involved in Inflammation and Cell Proliferation
	Avram Hershko, MD, PhD	Technion, Israel Institute of Technology	<i>Roles of the Ubiquitin System in the Control of Cell Division and in Cancer</i>	Ubiquitin System
	Jacob Hanna, MD, PhD	Weizmann Institute of Science	<i>New Cancer Therapy Related Mechanistic and Applied Frontiers with Patient Specific iPSCs</i>	Induced Pluripotent Stem Cells
	Eli Keshet, PhD	Hebrew University/ Hadassah Medical School	<i>Tumor Neovascularization Assisted by VEGF-Recruited and Educated Myeloid Cells</i>	Anti-Angiogenic Therapy
	Martin Kupiec, PhD	Tel Aviv University	<i>Dissecting the Molecular Functions of Elg1/ATAD5</i>	Molecular Biology
	Ofer Mandelboim, PhD	Hebrew University of Jerusalem	<i>Development of New Checkpoint Inhibitors Based on Novel TIGIT Ligands</i>	Immunology and Immunotherapy
	Ronit Satchi-Fainaro, PhD	Tel Aviv University	<i>P-Selectin-Targeted Nanomedicines and Immunotherapy for Brain Metastases Prevention</i>	Designing Treatment to Prevent Brain Metastases
	Yosef Shiloh, PhD	Tel Aviv University	<i>The ATM-Mediated DNA Damage Response: Moving between the Forest and the Trees</i>	The DNA Damage Response and Maintaining Genomic Stability
	Israel Vlodaysky, PhD	Technion, Israel Institute of Technology	<i>Heparanase: From Basic Research to Therapeutic Applications</i>	Improving Anti-Heparanase Therapies for Cancer Treatment
CLINICAL RESEARCH CAREER DEVELOPMENT AWARDS (CRCDA)	Irit Ben-Aharon, MD, PhD	Rabin Medical Center	<i>Chemotherapy-Induced Vascular Toxicity - unraveling the Mechanisms, Minimizing the Effect</i>	Preventing Vascular Damage Later in Life due to Childhood Cancer Treatment
	Amir Sonnenblick, MD, PhD	Hadassah Medical Organization	<i>Phosphorylated-STAT3 and Responsiveness to Breast Cancer Adjuvant Therapies</i>	Metastatic Breast Cancer and Resistance to Therapy

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BARBARA S. GOODMAN ENDOWED RCDA FOR PANCREATIC CANCER	Neta Milman, PhD	Ramabam Health Care Campus	<i>Microvesicle-Mediated Immunomodulation of Pancreatic Cancer Progression</i>	Pancreatic Cancer
RESEARCH CAREER DEVELOPMENT AWARDS (RCDAs)	Rony Dahan, PhD	Weizmann Institute of Science	<i>Increasing the Therapeutic Window of CD40 Agonistic Antibodies</i>	Immunology, Immunotherapy, and Cancer Metastasis
	Moshe Elkabets, PhD	Ben-Gurion University of the Negev	<i>Stromal Cell Mediated Mechanisms of Resistance to Anti-EGFR Therapies in Head and Neck Cancer</i>	Head and Neck Cancer
	Roi Gazit, PhD	Ben-Gurion University of the Negev	<i>Novel Models for Leukemias in Immune-Competent Mice</i>	Studying the Cellular Origins of Leukemias in order to Reveal Precise Treatment Targets
	Zvi Granot, PhD	Hebrew University of Jerusalem	<i>The Role Played by TRPM2 in Neutrophil-Mediated Killing of Cancer Cells</i>	Metastasis and Tumor Cell Killing by Neutrophils (Immunology)
	Yoni Haitin, PhD	Tel Aviv University	<i>The Molecular Basis of KCNH Channels Regulation of Cellular Proliferation</i>	Understanding the Molecular Crosstalk between Cells and Ion Channels and its Role in Cancerous Transformation
	Nir London, PhD	Weizmann Institute of Science	<i>Covalent Personalized Medicine - Targeting Oncogenic Mutations to Cysteine</i>	Finding Protein Mutations that Occur in Tumors Rather than Healthy Tissue to Use as Drug Targets
	Maayan Salton, PhD	Hebrew University of Jerusalem	<i>Splicing Modulation to Combat Vemurafenib Resistant Melanoma</i>	Melanoma and Skin Cancers
	Meir Shamay, PhD	Bar-Ilan University	<i>Methylation Signature of Herpes Viruses as a Diagnostic Tool for Viral-Associated Malignancies</i>	Early Detection of Viral-Associated Cancer using Lymphoma as a Model
	Ziv Shulman, PhD	Weizmann Institute of Science	<i>Reconstruction of tumor niches using NICHE-CyTOF</i>	Inflammation and Cancer, Pancreatic Cancer and Melanoma

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RCDAs <i>(continued)</i>	Reuven Wiener, PhD	Hebrew University of Jerusalem	<i>Targeting the Ubiquitin-Like Protein Activating Enzyme, UBA5, for Anti-Cancer Drug Design</i>	Anti-Cancer Drug Design
PROJECT GRANTS	Ron Apte, PhD	Ben-Gurion University of the Negev	<i>Targeting of MRD of TNBC with Anti-IL-1 Beta Antibodies</i>	Triple Negative Breast Cancer
	Gil Ast, PhD	Tel Aviv University	<i>Long and Short Introns Reside in Different Nuclear Subcompartments</i>	Computational Biology, Genetics and Genomics
	Gilad Bachrach, PhD	Hebrew University of Jerusalem	<i>Involvement of Fusobacterium Nucleatum in Breast Cancer</i>	Bacteria, Breast and Colon Cancers
	Oded Behar, PhD	Hebrew University of Jerusalem	<i>Cross Talk between Anatomically Related Astrocytes and Pediatric High Grade Gliomas</i>	Pediatric Brain Tumors
	Adit Ben-Baruch, PhD	Tel Aviv University	<i>TNFR2+ TILs in Triple Negative Breast Cancer: Phenotype, Roles and Therapy Implications</i>	Immunology and Immunotherapy, Triple Negative Breast Cancer
	Itai Benhar, PhD	Tel Aviv University	<i>Antibodies Targeting Cancer-Associated GPCRs Isolated by a Functional Yeast-Based Screen</i>	Immunology and Immunotherapy for Carcinomas
	Tal Burstyn-Cohen, PhD	Hebrew University of Jerusalem	<i>Deciphering Novel Antitumor Roles of PROS1</i>	Identifying Proteins Involved in Anti-Tumor Pathways
	Neta Erez, Ph.D.	Tel Aviv University	<i>Uncovering the Role of Fibroblasts in Facilitating Breast Cancer Metastasis and Therapy Resistance via NLRP3 Inflammasome Signaling</i>	Breast Cancer
	Talia Golan, MD	Chaim Sheba Medical Center	<i>Overcoming Resistance to PARP Inhibitor in BRCA-Associated PDAC</i>	Pancreatic Cancer
Gideon Gross, PhD	MIGAL-Galilee Research Institute	<i>New Costimulatory Signaling Elements for Enhancing the Antitumor Activity of CAR T Cells</i>	Immunotherapy	

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PROJECT GRANTS <i>(continued)</i>	Nathan Karin, PhD	Technion, Israel Institute of Technology	<i>CXCL10 as an Immune Checkpoint of Melanoma</i>	Melanoma
	Igor Koman, PhD	Ariel University	<i>Development of FACT inhibitors for cancer stem cell eradication and cancer treatment</i>	Drug Mechanisms and Development, Cancer Stem Cells
	Keren Levanon, MD, PhD	Chaim Sheba Medical Center	<i>Innovative Multiplex Biomarker for Early Detection of Ovarian Cancer</i>	Ovarian Cancer
	Michal Lotem, MD	Hadassah Medical Organization	<i>The Role of SLAMF6 in Cancer Immunometabolism</i>	Improving Immunotherapy
	Ariel Munitz, PhD	Tel Aviv University	<i>Eosinophils as Anti-Tumorigenic Cells in Colorectal Cancer</i>	Colorectal Cancer
	Yarden Opatowsky, PhD	Bar-Ilan University	<i>Developing Anti-Cancer Antibodies for Robo Receptors</i>	Developing Antibodies Against a Specific Signaling Pathway
	Amir Orian, MD, PhD	Technion, Israel Institute of Technology	<i>Targeting Non-Oncogene Addiction in Colon Cancer Stem Cells</i>	Colon Cancer
	Daniel Segal, PhD	Tel Aviv University	<i>Evaluating Arginine as a Potential Treatment for the von Hippel-Lindau Cancer Syndrome</i>	Drug Mechanisms and Development
	Yuval Shaked, PhD	Technion, Israel Institute of Technology	<i>Mechanisms underlying cancer resistance and hyperprogressive responses to immunotherapy</i>	Immunology and Immunotherapy, Inflammation and Cancer, Cancer Metastasis
	Julia Shifman, PhD	Hebrew University of Jerusalem	<i>Design of Mono- and Bi-Specific Inhibitors of Matrix Metalloproteinases</i>	Proteomics and Protein Structures and Protein Engineering
Itamar Simon, PhD	Hebrew University of Jerusalem	<i>Changes in the Replication Program in the Early Stages of Lung Cancer Transformation</i>	Lung Cancer	
Ruth Sperling, PhD	Hebrew University of Jerusalem	<i>Spliceosomal Nucleolin in Cancer</i>	Alternative Splicing and Gene Expression in Cancer	

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GESHER AWARDS	Lior Mayo, PhD	Tel Aviv University	<i>Role of Astrocytes in Glioblastoma Progression</i>	Brain Tumors
	Ruth Scherz-Shouval, PhD	Weizmann Institute of Science	<i>The Role of Stress Responses in cancer</i>	How Tumors Reprogram their own Microenvironment to Promote Survival
POSTDOCTORAL FELLOWSHIPS	Noa Furth, PhD	Weizmann Institute of Science	<i>Deciphering the Epigenetic Regulatory Network of Tumors with Single-Molecule Precision</i>	Blood, Brain, and Pediatric Cancers, Genetics and Genomics
	Asael Lubotzky, MD	Hebrew University of Jerusalem	<i>Detection of organ damage from tumor metastases using cell free DNA methylation patterns</i>	Genetics and Genomics, Metabolism and Cancer
	Hagit Masika, PhD	Hebrew University of Jerusalem	<i>Genome Wide Analysis of Asynchronous Replication Timing in Normal and Cancer Cells</i>	Do Tumors Behave Similar to Stem Cells?
	Yifat Yanku, PhD	Technion, Israel Institute of Technology	<i>Tumor Suppression Activity of Heparanase-2 (Hpa2)</i>	The Potential Tumor Suppressor Effects of Hpa2