Israel Cancer Research Fund

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RESEARCH AWARDS 2019-2020

For the 2019 / 2020 funding year, ICRF is supporting 72 grants valued at $4,716,666. This is broken down as follows:

9 Jacki and Bruce Barron Cancer Research Scholars' Program Grants *(A Partnership between ICRF and City of Hope)*	**3 Immunotherapy Promise Grants** *(A Partnership between ICRF and Cancer Research Institute)*
1 International Collaboration Grant	**1 B. S. Goodman Endowed RCDA for Pancreatic Cancer**
2 Brause Family Initiative for Quality of Life Grants	**11 Research Career Development Awards (RCDAs)**
4 L. & S. Mark Initiative for Ovarian/Uterine Cancers Grants	**17 Project Grants**
7 Acceleration Grants	**12 Research Professorship Grants**
5 Postdoctoral Fellowships	

With the 2019 / 2020 grants, ICRF's funding has now reached 2,498 grants totaling $72,867,332.

Among the areas of cancer research directly sponsored by ICRF in 2019 / 2020 are: studies in blood, brain, breast, colorectal, endometrial, gastrointestinal, head and neck, kidney, lung, oral, ovarian and uterine, pancreatic, pediatric, and skin cancers; anticancer drug mechanisms and design, drug resistance, and targeted therapy; pain management and quality of life issues; tumor blood vessel growth (angiogenesis); cancer stem cells and cellular reprogramming; expression, regulation, mutation and repair of genes and the DNA damage response; tumor metastasis; inflammation and cancer; immunology and immunotherapy; protein structures and protein interactions; cell signaling and cell-cycle regulation; the gut microbiome; and the tumor microenvironment.

AWARD	AWARDEE	INSTITUTION	PROJECT TITLE	TOPIC
JACKI & BRUCE BARRON CANCER RESEARCH SCHOLARS' PROGRAM GRANTS ***(A Partnership between ICRF and City of Hope)***	**Ziv Gil, MD, PhD (PI)** and **Laleh Melstrom, MD (Co-PI)**	Rambam Health Care Campus and City of Hope	*Targeting Pyrimidine Metabolism to Improve Chemotherapy Response in Pancreatic Cancer*	Improving Chemo-therapy for Pancreatic Cancer
	Emmilia Hodak, MD, PhD (PI) and **Christiane Querfeld, MD, PhD (Co-PI)**	Rabin Medical Center and City of Hope	*Targeting Epigenetic Mechanisms in Cutaneous T Cell Lymphoma*	Lymphoma, Immunology and Immunotherapy
	Noah Isakov, PhD (PI) and **Zuoming Sun, PhD (Co-PI)**	Ben-Gurion University of the Negev and City of Hope	*Dual Function of TCF-1 in Lymphoma Development*	Lymphoma, Immunology and Immunotherapy
	Shai Izraeli, MD (PI) and **Markus Müschen, MD, PhD (Co-PI)**	Schneider Children's Medical Center of Israel and City of Hope	*Oncogenic Feedback Signaling in "Ph-like" ALL: Mechanisms and Therapeutic Opportunities*	Pediatric Leukemia
	Erez Levanon, PhD (PI) and **Kevin Morris, PhD (Co-PI)**	Bar-Ilan University and City of Hope	*RNA Edited Long Non-Coding RNAs and their Role in Cancer*	Genetics and Genomics
	Ariel Munitz, PhD (PI) and **Hua Yu, PhD (Co-PI)**	Tel Aviv University and City of Hope	*Uncovering the Roles of Eosinophils in Lung Metastasis*	Immunology and Immunotherapy, Metastasis
	Gad Rennert, MD, PhD (PI) and **Jeffrey Weitzel, MD (Co-PI)**	Carmel Medical Center and City of Hope	*Cancer Susceptibility Mutations in Young Israeli Breast Cancer (BC) Patients*	Breast Cancer

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BARRON SCHOLARS' PROGRAM GRANTS (continued)	**Idit Shachar, PhD (PI)** and **Flavia Pichiorri, PhD (Co-PI)**	Weizmann Institute of Science and City of Hope	*Regulation of CD84 expression and function in multiple myeloma*	Multiple Myeloma
	Ravid Straussman, MD, PhD (PI) and **Dan Raz, MD (Co-PI)**	Weizmann Institute of Science and City of Hope	*The Effect of Intra-Tumor Bacteria on the Sensitivity of NSCLC to EGFR and ALK Inhibitors*	Non-Small Cell Lung Cancer
INTERNATIONAL COLLABORATION GRANT	**Ittai Ben-Porath, PhD (PI)** and **Francis Rodier, PhD (Co-PI)**	Hebrew University of Jerusalem and Université de Montréal	*Senescence of the Tumor Niche – Effects on Cancer Growth and Drug Response*	Inhibiting Tumor Growth by Targeting Blood Vessels
THE IMMUNOTHERAPY PROMISE GRANTS ***(A Partnership between ICRF and Cancer Research Institute)***	**Cyrille Cohen, PhD**	Bar-Ilan University	*CRISPR-Based Editing and Manipulation of TIGIT/CD96 to Enhance T-Cell Anti-Tumor Function*	Immunology and Immunotherapy
	Lior Nissim, PhD	Hebrew University of Jerusalem	*A Synthetic-Biology Based Modality for Lung Cancer Immunotherapy*	Lung Cancer, Immunology and Immunotherapy
	Asya Rolls, PhD	Technion, Israel Institute of Technology	*Neuronal Regulation of Anti-Tumor Immunity*	Immunology and Immunotherapy
BRAUSE FAMILY INITIATIVE FOR QUALITY OF LIFE GRANTS	**Yafit Gilboa, PhD**	Hebrew University of Jerusalem	*Combined Model of Online Remote Interventions for Cancer-Related Cognitive Decline*	Preventing Cancer-Related Cognitive Decline
	Avi Priel, PhD	Hebrew University of Jerusalem	*Non-Opioid Specific Analgesics for Cancer Pain: Modulating the Pain Receptor TRPV1*	Developing Non-Opioid Treatments for Cancer Pain Management

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LEN & SUSAN MARK INITIATIVE FOR OVARIAN AND UTERINE/MMMT CANCERS GRANTS	**Rotem Karni, PhD**	Hebrew University of Jerusalem	*The Role of FOXL2 in Ovarian Cancer Progression*	Ovarian Cancer
	Ruth Perets, MD, PhD	Rambam Health Care Campus	*Novel Structural Based Mechanism of Targeting Ovarian and Endometrial Carcinomas*	Ovarian and Endometrial Cancers
	Itay Tirosh, PhD	Weizmann Institute of Science	*Single Cell Analysis of Ovarian and Uterine Cancers*	Ovarian and Uterine Cancers
	Yosef Yarden, PhD	Weizmann Institute of Science	*Towards Immunotherapy of Ovarian Cancer: Disabling the Immuno-Suppressive Microenvironment*	Developing Immunotherapy for Ovarian Cancer
ACCELERATION GRANTS	**Shay Ben-Aroya, PhD**	Bar-Ilan University	*Identifying Proteasome Targets Involved in DNA Double Strand Breaks Repair*	DNA Breakage and Repair
	Limor Broday, PhD	Tel Aviv University	*Elucidating the Role of the Upstream Partner in Oncogenic ALK Gene Fusions*	Cell Signaling, Genetics and Genomics, Model Organisms, Lung Cancer
	Benjamin Dekel, MD, PhD	Chaim Sheba Medical Center	*Genetic Engineering Based Novel Therapeutic Approaches Against Wilms' Tumor*	Cancer Stem Cells, Pediatric Kidney Cancers
	Yaron Fuchs, PhD	Technion, Israel Institute of Technology	*Caspase-3 as a Novel Therapeutic Target for Skin Cancer Therapy*	Skin Cancer

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ACCELERATION GRANTS *(continued)*	**Naama Geva-Zatorsky, PhD**	Technion, Israel Institute of Technology	*Prevention of Cancer by Gut Bacteriophages*	Colorectal and Gastro-intestinal Cancers, Inflammation and Cancer
	Yifat Merbl, PhD	Weizmann Institute of Science	*Reshaping Dysfunctional T Cells by Modulating Ubiquitin-Dependent Regulation*	Predicting Responses to Immunotherapy
	Yitzhak Pilpel, PhD	Weizmann Institute of Science	*Characterizing the Spectrum and Mechanisms of Phenotypic Errors in Cancer*	Molecular Genetics and Computational Biology
RESEARCH PROFESSORSHIP GRANTS	**Michal Baniyash, PhD**	Hebrew University of Jerusalem	*The Role of Immunosuppressive Cells and Gut Microbiota in Inflammatory Bowel Disease and Colorectal Cancer: Clinical Implications*	Colorectal Cancer
	Yinon Ben-Neriah, MD, PhD	Hebrew University/ Hadassah Medical School	*CKI Regulation in Normal and Malignant Stem Cells*	Colorectal Cancer and Cancer Stem Cells
	Yehudit Bergman, PhD	Hebrew University/ Hadassah Medical School	*The Role of Epigenetic Regulation in Stem Cells and Cancer*	Cancer Stem Cells, Inflammation and Cancer, Breast and Colon Cancer
	Howard Cedar, MD, PhD	Hebrew University/ Hadassah Medical School	*Regulation of Gene Expression in Animal Cells*	Molecular Genetics
	Aaron Ciechanover, MD, DSc	Technion, Israel Institute of Technology	*Unraveling the Tumor-Suppressing Mechanisms Involved in Ubiquitin-Mediated Activation of NF-kappaB*	Ubiquitin System, NF-κB Protein, Involvement in Inflammation and Cell Proliferation

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RESEARCH PROFESSORSHIP GRANTS *(continued)*	**Jacob Hanna, MD, PhD**	Weizmann Institute of Science	*New Cancer Therapy Related Mechanistic and Applied Frontiers with Patient Specific iPSCs*	Induced Pluripotent Stem Cells
	Avram Hershko, MD, PhD	Technion, Israel Institute of Technology	*Roles of the Ubiquitin System in the Control of Cell Division and in Cancer*	Ubiquitin System
	Martin Kupiec, PhD	Tel Aviv University	*Dissecting the Molecular Functions of Elg1/ATAD5*	Molecular Biology
	Ofer Mandelboim, PhD	Hebrew University of Jerusalem	*Development of New Checkpoint Inhibitors Based on Novel TIGIT Ligands*	Immunology and Immunotherapy
	Ronit Satchi-Fainaro, PhD	Tel Aviv University	*P-Selectin-Targeted Nanomedicines and Immunotherapy for Brain Metastases Prevention*	Designing Treatment to Prevent Brain Metastases
	Yosef Shiloh, PhD	Tel Aviv University	*The ATM-Mediated DNA Damage Response: Moving between the Forest and the Trees*	The DNA Damage Response and Maintaining Genomic Stability
	Israel Vlodavsky, PhD	Technion, Israel Institute of Technology	*Heparanase: From Basic Research to Therapeutic Applications*	Improving Anti-Heparanase Therapies for Cancer Treatment
BARBARA S. GOODMAN ENDOWED RCDA FOR PANCREATIC CANCER	**Neta Milman, PhD**	Ramabam Health Care Campus	*Microvesicle-Mediated Immunomodulation of Pancreatic Cancer Progression*	Pancreatic Cancer

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RESEARCH CAREER DEVELOPMENT AWARDS (RCDAs)	**Rony Dahan, PhD**	Weizmann Institute of Science	*Increasing the Therapeutic Window of CD40 Agonistic Antibodies*	Immunology, Immunotherapy, and Cancer Metastasis
	Moshe Elkabets, PhD	Ben-Gurion University of the Negev	*Stromal Cell Mediated Mechanisms of Resistance to Anti-EGFR Therapies in Head and Neck Cancer*	Head and Neck Cancer
	Moshe Giladi, MD, PhD	Tel Aviv University	*Molecular Basis of cis-Prenyl-Transferase Activity Underlying Aberrant Cancer Glycosylation*	Studying Sugars on the Surface of Cancer Cells as Treatment Targets
	Zvi Granot, PhD	Hebrew University of Jerusalem	*The Role Played by TRPM2 in Neutrophil-Mediated Killing of Cancer Cells*	Metastasis and Tumor Cell Killing by Neutrophils (Immunology)
	Nir London, PhD	Weizmann Institute of Science	*Targeting Melanoma with Covalent Drugs*	New Drug Targets for Melanoma
	Rotem Rubinstein, PhD	Tel Aviv University	*Structural Biology of VISTA - an Immune Checkpoint Inhibitor*	Immunology and Immunotherapy
	Maayan Salton, PhD	Hebrew University of Jerusalem	*Splicing Modulation to Combat Vemurafenib Resistant Melanoma*	Melanoma and Skin Cancers
	Yoav Shaul, PhD	Hebrew University of Jerusalem	*The Essential Role of Dihydro-pyrimidines in Breast Cancer Progression*	Breast Cancer Metastasis
	Ziv Shulman, PhD	Weizmann Institute of Science	*Reconstruction of Tumor Niches using NICHE-CyTOF*	Inflammation and Cancer, Pancreatic Cancer and Melanoma

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RCDAs *(continued)*	**Yonatan Stelzer, PhD**	Weizmann Institute of Science	*Studying Non-Canonical Expression of IGF2 and its Role in Tumorigenesis*	Epigenetics in Cancer Biology
	Reuven Wiener, PhD	Hebrew University of Jerusalem	*Targeting the Ubiquitin-Like Protein Activating Enzyme, UBA5, for Anti-Cancer Drug Design*	Anti-Cancer Drug Design
PROJECT GRANTS	**Gil Ast, PhD**	Tel Aviv University	*Long and Short Introns Reside in Different Nuclear Subcompartments*	Computational Biology, Genetics and Genomics
	Gilad Bachrach, PhD	Hebrew University of Jerusalem	*Involvement of Fusobacterium Nucleatum in Breast Cancer*	Bacteria, Breast and Colon Cancers
	Irit Ben Aharon, MD, PhD	Rambam Health Care Campus	*Cancer and Pregnancy: Role of Vascular Toxicity in Chemotherapy-Induced Placental Insult*	Chemotherapy, Cancer and Pregnancy
	Adit Ben-Baruch, PhD	Tel Aviv University	*TNFR2+ TILs in Triple Negative Breast Cancer: Phenotype, Roles and Therapy Implications*	Immunology and Immunotherapy, Triple Negative Breast Cancer
	Itai Benhar, PhD	Tel Aviv University	*Antibodies Targeting Cancer-Associated GPCRs Isolated by a Functional Yeast-Based Screen*	Immunology and Immunotherapy for Carcinomas
	Neta Erez, Ph.D.	Tel Aviv University	*Uncovering the Role of Stromal and Immune Cells in the Lung Metastatic Niche of Breast Cancer*	Breast Cancer Metastasis to the Lungs
	Avi-Hai Hovav, PhD	Hebrew University of Jerusalem	*A Shift in Epithelial Antigen-Presenting Cells Drives Oral Squamous Cell Carcinoma*	Oral Carcinoma

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PROJECT GRANTS *(continued)*	**Tomer Kalisky, PhD**	Bar-Ilan University	*Characterizing Cellular Heterogeneity in Renal Cell Carcinoma Using Single-Cell Genomics*	Kidney Cancer
	Nathan Karin, PhD	Technion, Israel Institute of Technology	*CXCL10 as a Positive Immune Checkpoint for Effector CD8+ T Cells in Cancer Immunotherapy*	Immunology and Immunotherapy for Melanoma
	Igor Koman, PhD	Ariel University	*Development of FACT inhibitors for cancer stem cell eradication and cancer treatment*	Drug Mechanisms and Development, Cancer Stem Cells
	Yaacov Lawrence, MBBS	Chaim Sheba Medical Center	*Mechanistic Exploitation of Metabolic Rewiring Overcomes Radioresistant Pancreatic Cancer*	Radiation-Resistant Pancreatic Cancer
	Michael Milyavsky, PhD	Tel Aviv University	*Characterization and Targeting of a Novel Epigenetic Circuit in Acute Leukemia*	Pediatric Leukemia
	Thomas Schultheiss, MD, PhD	Technion, Israel Institute of Technology	*An In Vivo Model for Studying Mesenchymal-to-Epithelial Transition (MET)*	Metastasis
	Daniel Segal, PhD	Tel Aviv University	*Evaluating Arginine as a Potential Treatment for the von Hippel-Lindau Cancer Syndrome*	Drug Mechanisms and Development
	Yuval Shaked, PhD	Technion, Israel Institute of Technology	*Mechanisms Underlying Cancer Resistance and Hyperprogressive Responses to Immunotherapy*	Immunology and Immunotherapy

AWARD	AWARDEE	INSTITUTION	PROJECT TITLE	TOPIC
PROJECT GRANTS *(continued)*	**Julia Shifman, PhD**	Hebrew University of Jerusalem	*Design of Mono- and Bi-Specfic Inhibitors of Matrix Metalloproteinases*	Proteomics and Protein Structures and Protein Engineering
POSTDOCTORAL FELLOWSHIPS	**Michal Brunwasser-Meirom, PhD**	Technion, Israel Institute of Technology	*Harnessing the Gut Bacteria and Bacteriophages for Cancer Therapy*	Testing Bacteria and Viruses for Cancer Immunotherapy
	Noa Furth, PhD	Weizmann Institute of Science	*Deciphering the Epigenetic Regulatory Network of Tumors with Single-Molecule Precision*	Blood, Brain, and Pediatric Cancers, Genetics and Genomics
	Lina Jaber, PhD	Hebrew University of Jerusalem	*Dissecting the Role of Tumor Suppressor WWOX in Antagonizing Pancreatic Cancer*	Pancreatic Cancer
	Asael Lubotzky, MD	Hebrew University of Jerusalem	*Detection of organ damage from tumor metastases using cell free DNA methylation patterns*	Genetics and Genomics, Metabolism and Cancer
	Lirin Michaeli, PhD	Tel Aviv University	*SUMO Regulation on UPRmt and Apoptosis Resistance*	New Targets for Cancer Treatment