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RESEARCH AWARDS 2017-2018

For the 2017 / 2018 funding year, ICRF is supporting 70 grants at a total of \$3,934,500. This is broken down as follows:

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| 4 International Collaboration Grants | 1 B. S. Goodman Endowed RCDA for Pancreatic Cancer |
| 1 L. & S. Mark Initiative for Ovarian/Uterine Cancer | 11 Research Career Development Awards (RCDAs) |
| 7 Acceleration Grants | 23 Project Grants |
| 11 Research Professorships | 2 Gesher Awards |
| 3 Clinical Research Career Development Awards | 3 Postdoctoral Fellowship |

Jacki and Bruce Barron Cancer Research Scholars's Program (A Partnership between ICRF and City of Hope)

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| 3 International Collaboration Grants | 1 Six-Month Sabbatical for an Israeli Scientist at City of Hope |
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With the 2017 / 2018 grants, ICRF's funding has now reached 2,348 grants totaling \$63,866,500.

Among the areas of cancer research directly sponsored by ICRF in 2016 / 2017 are: studies in bone, brain, breast, colorectal, head and neck, lung, ovarian, pancreatic, pediatric, prostate, and skin cancers; anticancer drug mechanisms, drug resistance, and targeted therapy; development of new diagnostic imaging techniques; 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
JACKI & BRUCE BARRON CANCER RESEARCH SCHOLARS' PROGRAM – <i>(A Partnership between ICRF and City of Hope)</i>	Marcelo Ehrlich, Ph.D. (PI) and Marcin Kortylewski, Ph.D. (Co-PI)	Tel Aviv University and City of Hope	<i>Modifying the Prey: Targeting of Signal Regulators with siRNA for Improved Viral Oncolysis</i>	Immunotherapy and Prostate Cancer
	Ziv Gil, M.D., Ph.D. (PI) and Mei Kong, Ph.D. (Co-PI)	Rambam Health Care Campus and City of Hope	<i>Macrophage-Shuttling of miRNA via Exosomes Reprograms Glucose Metabolism in Pancreatic Cancer</i>	Pancreatic Cancer
	Zeev Gross, Ph.D. (PI) and John Termini, Ph.D. (Co-PI)	Technion, Israel Institute of Technology and City of Hope	<i>Metalloproteases for Imaging and Therapy in Malignant Melanoma</i>	Diagnostic Imaging and Melanoma
SIX-MONTH SABBATICAL at CITY OF HOPE	Zeev Gross, Ph.D. <i>(in the laboratory of John Termini, Ph.D. at City of Hope)</i>	Technion, Israel Institute of Technology	<i>Theranostic Metallodrugs for Imaging and Fighting Cancer</i>	Diagnostic Imaging
INTERNATIONAL COLLABORATION GRANTS	Ittai Ben-Porath, Ph.D. (PI) and Francis Rodier, Ph.D. (Co-PI)	Hebrew University/ Hadassah Medical School and Université de Montréal	<i>Senescence of the Tumor Niche – Effects on Cancer Growth and Drug Response</i>	Inhibiting Tumor Growth by Targeting Blood Vessels
	Sol Efroni, Ph.D. (PI) and Francisco Quintana, Ph.D. (Co-PI)	Bar-Ilan University and Brigham & Women's Hospital	<i>miR-29b and miR-9 to Target Glioblastoma Multiform via AHR and p38 Network Modulation</i>	Brain Tumors
	Ephrat Levy-Lahad, M.D. (PI) and Mary-Claire King, Ph.D. (Co-PI)	Shaare Zedek Medical Center and University of Washington	<i>Genomic Analysis of Inherited Breast and Ovarian Cancer for Israeli Women of all Ancestries</i>	Breast and Ovarian Cancer
	Uri Nir, Ph.D. (PI) and Eldad Zacksenhaus, Ph.D. (Co-PI)	Bar-Ilan University and Toronto General Hospital	<i>Studying the Role of Mitochondrial Reprogramming by Fer/FerT in Tumor Metastasis</i>	Metastasis

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LEN & SUSAN MARK INITIATIVE FOR OVARIAN AND UTERINE/MMMT CANCERS	Varda Rotter, Ph.D.	Weizmann Institute of Science	<i>Ovarian Cancer Therapeutics Mediated by Modulation of Mutant p53 Protein into Wild Type Conformation</i>	Ovarian Cancer
ACCELERATION GRANTS	Nabieh Ayoub, Ph.D.	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
	Yaron Fuchs, Ph.D.* <i>* to begin in 2018-2019</i>	Technion, Israel Institute of Technology	<i>Caspase-3 as a Novel Therapeutic Target for Skin Cancer Therapy</i>	Skin Cancer
	Hava Gil-Henn, Ph.D.	Bar-Ilan University	<i>Elucidating Metastatic Signaling Pathways by Using a Phospho-Proteogenomic Approach</i>	Metastasis
	Bella Kaufman, M.D.	Chaim Sheba Medical Center	<i>The Role of Intestinal Microbiota in Breast Cancer Progression and Therapy</i>	Breast Cancer
	Erez Levanon, Ph.D.	Bar-Ilan University	<i>Retrotransposition and Somatic Processed Pseudogenes in Human Cancer</i>	Acquired Genetic Mutations due to Viral Remnants
	Norman Metanis, Ph.D.	Hebrew University of Jerusalem	<i>Developing Potent Inhibitors against Mutants of K-Ras Protein</i>	A New Way of Studying the K-Ras Protein
	Aviad Zick, M.D., Ph.D.	Hadassah Medical Organization	<i>Tissue Specific Methylation Patterns of Circulating DNAs as Biomarkers for Neurotoxicity</i>	Early Detection of Neuronal Damage due to Anticancer Treatments

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PROFESSORSHIPS	Michal Baniyash, Ph.D.	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, M.D., Ph.D.	Hebrew University/ Hadassah Medical School	<i>CKI Regulation in Normal and Malignant Stem Cells</i>	Colorectal Cancer and Cancer Stem Cells
	Yehudit Bergman, Ph.D.	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, M.D., Ph.D.	Hebrew University/ Hadassah Medical School	<i>Regulation of Gene Expression in Animal Cells</i>	Molecular Genetics
	Aaron Ciechanover, M.D., D.Sc.	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-kB Protein and How They are Involved in Inflammation and Cell Proliferation
	Avram Hershko, M.D., Ph.D.	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, M.D., Ph.D.	Weizmann Institute of Science	<i>New Cancer Therapy Related Mechanistic and Applied Frontiers with Patient Specific iPSCs</i>	Induced Pluripotent Stem Cells
	Eli Keshet, Ph.D.	Hebrew University/ Hadassah Medical School	<i>Tumor Neovascularization Assisted by VEGF-Recruited and Educated Myeloid Cells</i>	Anti-Angiogenic Therapy
	Martin Kupiec, Ph.D.	Tel Aviv University	<i>Dissecting the Molecular Functions of Elg1/ATAD5</i>	Molecular Biology
	Yosef Shiloh, Ph.D.	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, Ph.D.	Technion, Israel Institute of Technology	<i>Heparanase: From Basic Research to Therapeutic Applications</i>	Improving Anti-Heparanase Therapies for Cancer Treatment	

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CLINICAL RESEARCH CAREER DEVELOPMENT AWARDS (CRCDA)	Irit Ben-Aharon, M.D., Ph.D.	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
	Ruth Perets, M.D., Ph.D.	Rambam Health Care Campus	<i>The Role of Fallopian Tube Lineage in Ovarian Cancer Pathogenesis</i>	Ovarian Cancer
	Amir Sonnenblick, M.D., Ph.D.	Hadassah Medical Organization	<i>Phosphorylated-STAT3 and Responsiveness to Breast Cancer Adjuvant Therapies</i>	Metastatic Breast Cancer and Resistance to Therapy
BARBARA S. GOODMAN ENDOWED RCDA FOR PANCREATIC CANCER	Neta Milman, Ph.D.	Ramabam Health Care Campus	<i>Microvesicle-Mediated Immunomodulation of Pancreatic Cancer Progression</i>	Pancreatic Cancer
RESEARCH CAREER DEVELOPMENT AWARDS (RCDAs)	Michael Blank, Ph.D.	Bar-Ilan University	<i>Investigating the Role of Smurf2 in DNA Damage Response and Anticancer Genotoxic Therapies</i>	Tumor Cell Sensitivity to Anticancer Therapies and Metastasis
	Moshe Elkabets, Ph.D.	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
	Yaron Fuchs, Ph.D.	Technion, Israel Institute of Technology	<i>Apoptotic Regulation of Cancer Stem Cells</i>	Programmed Cell Death (Apoptosis) and Cancer Stem Cells
	Roi Gazit, Ph.D.	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, Ph.D.	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)

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RCDAs <i>(continued)</i>	Yoni Haitin, Ph.D.	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
	Ayelet Lamm, Ph.D.	Technion, Israel Institute of Technology	<i>Identifying the Mechanisms by which Intracellular Transport affects Pancreatic Cancer Development</i>	Pancreatic Cancer
	Nir London, Ph.D.	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
	Meir Shamay, Ph.D.	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
	Shiran Shapira, Ph.D.	Tel Aviv Sourasky Medical Center	<i>Humanized Anti-CD24 Antibody; A Potential Biology Tool for Cancer Immunotherapy</i>	Cancer Immunotherapy and Colorectal and Pancreatic Cancers
	Reuven Wiener, Ph.D.	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, Ph.D.	Ben-Gurion University of the Negev	<i>Targeting of MRD of TNBC with Anti-IL-1 Beta Antibodies</i>	Triple Negative Breast Cancer
	Rami Aqeilan, Ph.D.	Hebrew University/ Hadassah Medical School	<i>Role of the WWOX Fragile Gene in the Development of Pancreatic Cancer</i>	The WWOX Gene and pancreatic Cancer
	Gilad Bachrach, Ph.D.	Hebrew University of Jerusalem	<i>Colon Cancer Colonizing Fusobacteria and their Anti-Tumor Potential</i>	Studying Whether Bacteria can be used to Fight Colon Cancer
	Oded Behar, Ph.D.	Hebrew University of Jerusalem	<i>Cross Talk between Anatomically Related Astrocytes and Pediatric High Grade Gliomas</i>	Pediatric Brain Tumors
	Tal Burstyn-Cohen, Ph.D.	Hebrew University of Jerusalem	<i>Deciphering Novel Antitumor Roles of PROS1</i>	Identifying Proteins Involved in Anti-Tumor Pathways

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PROJECT GRANTS <i>(continued)</i>	Haim Cohen, Ph.D.	Bar-Ilan University	<i>Regulation of Metabolic Decisions by SIRT6 and p53 Under Normal and Stress Conditions</i>	Cell metabolism, tumor suppressors, and the DNA damage response
	Amir Eden, Ph.D.	Hebrew University of Jerusalem	<i>EZH2 and ErbB Family Inhibition in Rhabdoid Tumors</i>	The Molecular Processes Underlying Pediatric Bone Cancer
	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
	Zvi Fridlender, M.D.	Hadassah Medical Organization	<i>The Differential Regulation and Clinical Importance of Circulating Cancer-Related Neutrophil Sub-Populations</i>	Tumor Immunotherapy and Lung Cancer
	Assaf Friedler, Ph.D.	Hebrew University of Jerusalem	<i>Disordered Proteins As Anti-Cancer Drug Targets</i>	Finding Targets for New Anticancer Drugs
	Talia Golan, M.D.	Chaim Sheba Medical Center	<i>Overcoming Resistance to PARP Inhibitor in BRCA-Associated PDAC</i>	Pancreatic Cancer
	Gideon Gross, Ph.D.	MIGAL-Galilee Research Institute	<i>New Costimulatory Signaling Elements for Enhancing the Antitumor Activity of CAR TCells</i>	Immunotherapy
	Asaf Hellman, Ph.D.	Hebrew University of Jerusalem	<i>Understanding Epigenetic Contribution to Cancer Risk and Malignancy Through Targeting the DNA Methylation of Transcriptional Enhancers</i>	Gene Mutation Pathways and Brain Tumors
	Nathan Karin, Ph.D.	Technion, Israel Institute of Technology	<i>CXCL10 as an Immune Checkpoint of Melanoma</i>	Melanoma
	Michal Lotem, M.D.	Hadassah Medical Organization	<i>The Role of SLAMF6 in Cancer Immunometabolism</i>	Improving Immunotherapy

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PROJECT GRANTS <i>(continued)</i>	Ariel Munitz, Ph.D.	Tel Aviv University	<i>Eosinophils as Anti-Tumorigenic Cells in Colorectal Cancer</i>	Colorectal Cancer
	Yarden Opatowsky, Ph.D.	Bar-Ilan University	<i>Developing Anti-Cancer Antibodies for Robo Receptors</i>	Developing Antibodies Against a Specific Signaling Pathway
	Amir Orian, M.D., Ph.D.	Technion, Israel Institute of Technology	<i>Targeting Non-Oncogene Addiction in Colon Cancer Stem Cells</i>	Colon Cancer
	Dan Peer, Ph.D.	Tel Aviv University	<i>Harnessing RNAi Nanomedicines for Therapeutic Gene Silencing in Glioblastoma Multiforme</i>	Using a Nano-Particle Delivery System to Treat Brain Tumors
	Ada Rephaeli, Ph.D.	Tel Aviv University	<i>The Advantages of Valproic Acid Prodrug and the Mechanism Involved in its Anticancer and Protective Activities in the Treatment of Triple Negative Breast Carcinoma</i>	Improving Therapy for Triple-Negative Breast Cancer
	Itamar Simon, Ph.D.	Hebrew University of Jerusalem	<i>Changes in the Replication Program in the Early Stages of Lung Cancer Transformation</i>	Lung Cancer
	Ruth Sperling, Ph.D.	Hebrew University of Jerusalem	<i>Spliceosomal Nucleolin in Cancer</i>	Alternative Splicing and Gene Expression in Cancer
	Joel Yisraeli, Ph.D.	Hebrew University of Jerusalem	<i>VICKZ Proteins as Cancer Therapeutics</i>	Studying Proteins that may Play a Role in Tumor Growth and Metastasis

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GESHER AWARDS	Lior Mayo, Ph.D.	Tel Aviv University	<i>Role of Astrocytes in Glioblastoma Progression</i>	Brain Tumors
	Ruth Scherz-Shouval, Ph.D.	Weizmann Institute of Science	<i>The Role of Stress Responses in cancer</i>	How Tumors Reprogram their own Microenvironment to Promote Survival
POSTDOCTORAL FELLOWSHIPS	Hagit Masika, Ph.D.	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?
	Maya Olshina, Ph.D.	Weizmann Institute of Science	<i>Regulating Degradation by the 20S Proteasome: Identification of Novel Regulatory Proteins</i>	How a Specific Protein Degradation Pathway Regulates Cell Growth and Division
	Yifat Yanku, Ph.D.	Technion, Israel Institute of Technology	<i>Tumor Suppression Activity of Heparanase-2 (Hpa2)</i>	The Potential Tumor Suppressor Effects of Hpa2

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