

## RESEARCH GRANTS 2021-2022

For the 2021 / 2022 funding year, ICRF is supporting 74 grants valued at \$4,616,334. This is broken down as follows:

<b>2 Jacki and Bruce Barron Cancer Research Scholars' Program Grants</b> <i>(A Partnership between ICRF and City of Hope)</i>	<b>2 Max Ritvo, Alan Slifka and Desiree Dato Fund Grants</b> <i>(A Partnership between ICRF, SWCRF, and ABSF)</i>
<b>2 Gesher Grants for Academic Excellence</b> <i>(A Partnership between ICRF and the Israel Ministry of Science and Technology)</i>	<b>2 ICRF-Conquer Cancer Career Development Awards</b> <i>(A Partnership between ICRF and Conquer Cancer [The ASCO Foundation])</i>
<b>2 Abshez Initiative for Female Reproductive System Cancers Grants</b>	<b>1 B. S. Goodman Endowed RCDA for Pancreatic Cancer</b>
<b>3 L. &amp; S. Mark Initiative for Ovarian/Uterine Cancers Grants</b>	<b>13 Research Career Development Awards (RCDAs)</b>
<b>2 Acceleration Grants</b>	<b>29 Project Grants</b>
<b>6 Postdoctoral Fellowships</b>	<b>9 Research Professorship Grants</b>
<b>1 Clinical Research Career Development Award (CRCDA)</b>	

With the 2021 / 2022 grants, ICRF's funding has now reached 2,643 grants totaling \$82,368,334.

*Among the areas of cancer research directly sponsored by ICRF in 2021 / 2022 are: studies in blood, brain, breast, colorectal, kidney, liver, lung, oral, ovarian, pancreatic, pediatric, and skin cancers; drug development; cancer stem cells and cellular reprogramming; imaging and early detection; expression, regulation, and mutation of genes, and DNA repair; tumor metastasis; inflammation and cancer; obesity and cancer; cannabinoids and cancer; immunology and immunotherapy; proteomics and computational biology; cell signaling and cell-cycle control.*

AWARD	AWARDEE	INSTITUTION	PROJECT TITLE	TOPIC
<b>JACKI &amp; BRUCE BARRON CANCER RESEARCH SCHOLARS' PROGRAM GRANTS</b> <i>(A Partnership between ICRF and City of Hope)</i>	<b>Yardena Samuels, PhD (PI) and Yuan Yuan, MD, PhD (Co-PI)</b>	Weizmann Institute of Science and City of Hope	<i>Identifying PIK3CA Neoantigen-Specific T Cell Receptors for Cell Therapy of Solid Tumors</i>	Immunology and Immunotherapy, Genetics and Genomics
	<b>Tomer Shlomi, PhD (PI) and Saul Priceman, PhD (Co-PI)</b>	Technion, Israel Institute of Technology and City of Hope	<i>Overcoming Immunosuppression of Adoptive T Cell Therapy for Solid Tumors via Metabolic Engineering</i>	Immunology and Immunotherapy, Metabolism and Cancer
<b>ICRF-CONQUER CANCER CAREER DEVELOPMENT AWARDS</b> <i>(A Partnership between ICRF and Conquer Cancer [The ASCO Foundation])</i>	<b>Albert Grinshpun, MD</b>	Hadassah University Medical Center	<i>Universal Detection of Breast Cancer</i>	Early Diagnosis of Breast Cancer via a Blood Test
	<b>Shlomit Strulov Shachar, MD</b>	Tel Aviv Sourasky Medical Center	<i>Identifying Molecular Oncogenic Drivers Associated with Differential Clinical Benefit to Inhibition of the P13K Pathway in Estrogen Receptor-Positive Metastatic Breast Cancer</i>	Metastatic Breast Cancer
<b>MAX RITVO, ALAN SLIFKA AND DESIREE DATO FUND GRANTS FOR FUSION-ONCOPROTEIN CANCERS AND METASTASIS</b> <i>(A Partnership between ICRF, Samuel Waxman Cancer Research Foundation, and Alan B. Slifka Foundation)</i>	<b>Ido Amit, PhD (PI) and Miriam Merad, MD, PhD (Co-PI)</b>	Weizmann Institute of Science and Icahn School of Medicine at Mount Sinai Medical Center	<i>Elucidating the Mechanisms by which Pyk2 Regulates Tumor-Macrophage Interactions in Metastasis</i>	Metastasis
	<b>Yosef Yarden, PhD (PI) and Elizabeth Lawlor, MD, PhD (Co-PI)</b>	Weizmann Institute of Science and Seattle Children's Research Institute	<i>Impact of Steroid Hormones on Ewing Sarcoma: Mechanisms and Implications for Treatment</i>	Ewing Sarcoma

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<b>GESHER GRANTS FOR ACADEMIC EXCELLENCE</b>  <i>(A Partnership between ICRF and the Israel Ministry of Science and Technology [MOST])</i>	Uri Ben-David, PhD	Tel Aviv University	<i>Dissecting the Selection Pressures that Shape Aneuploidy Landscapes in Cancer</i>	Genetics and Genomics
	Erez Hasnis, MD, PhD	Rambam Health Care Campus	<i>Role of RNF125 in Acinar-to-Ductal Metaplasia and Pancreatic Cancer</i>	Pancreatic Cancer
<b>BEVERLEY LIBRACH ABSHEZ INITIATIVE FOR OVARIAN AND FEMALE REPRODUCTIVE SYSTEM CANCERS</b>	Ruth Perets, MD, PhD	Rambam Health Care Campus	<i>A Novel, Highly-Specific Mouse Model for Studying HGSC Pathogenesis and Prevention</i>	Ovarian Cancer
	Ziv Shulman, PhD	Weizmann Institute of Science	<i>The Physiological Role of Patient-Derived Antibodies in Ovarian Cancer Progression</i>	Ovarian Cancer
<b>LEN &amp; SUSAN MARK INITIATIVE FOR OVARIAN AND UTERINE/MMMT CANCERS GRANTS</b>	Sol Efroni, PhD	Bar-Ilan University	<i>Early Detection of Ovarian Cancer using a Blood Sample</i>	Ovarian Cancer
	Keren Levanon, MD, PhD	Chaim Sheba Medical Center	<i>Predicting and Overcoming Resistance to First-Line Chemotherapy in Ovarian Cancer</i>	Ovarian Cancer
	Eylon Yavin, PhD	Hebrew University of Jerusalem	<i>Imaging Ovarian Cancer by cpFIT-PNAs</i>	Ovarian Cancer
<b>CLINICAL RESEARCH CAREER DEVELOPMENT AWARD</b>	Amit Tirosh, MD	Chaim Sheba Medical Center	<i>Investigating the Role of Onco-metabolites in von Hippel-Lindau Related Endocrine Cancer</i>	Pancreatic Cancer

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BARBARA S. GOODMAN ENDOWED RCDA FOR PANCREATIC CANCER	Oren Parnas, PhD	Hebrew University of Jerusalem	<i>A Functional Investigation of Acinar Metaplastic and Pancreatic Tumor Expressed Genes</i>	Pancreatic Cancer
RESEARCH CAREER DEVELOPMENT AWARDS (RCDAs)	Sheera Adar, PhD	Hebrew University of Jerusalem	<i>A DNA Repair Role for SWI/SNF Chromatin Remodelers in Cancer Prevention and Therapy</i>	Cancer Prevention and Therapy
	Yaron Carmi, PhD	Tel Aviv University	<i>Identifying the Mechanisms Underlying Melanoma Relapse Following Curative Surgery</i>	Skin Cancer
	Idan Cohen, PhD	Ben-Gurion University of the Negev	<i>Polycomb Repressive Complex 1 and Histone H2AK119 Mono- Ubiquitination in Skin Cancer</i>	Skin Cancer
	Moshe Giladi, MD, PhD	Tel Aviv University	<i>Molecular Basis of cis-Prenyl- Transferase Activity Underlying Aberrant Cancer Glycosylation</i>	Studying Sugars on the Surface of Cancer Cells as Treatment Targets
	Joshua Grolman, PhD	Technion, Israel Institute of Technology	<i>The Role of ECM Plasticity on Immune Modulation in the Tumor Microenvironment</i>	Inflammation and the Immune Response
	Nir London, PhD	Weizmann Institute of Science	<i>Targeting Melanoma with Covalent Drugs</i>	Drug Development for Skin Cancer
	Asaf Madi, PhD	Tel Aviv University	<i>Improving Durable Response Rates Following Checkpoint Blockade Therapy</i>	Inflammation and the Immune Response

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RCDAs (continued)	Katy Margulis, PhD	Hebrew University of Jerusalem	<i>Development of New Therapies in Cancer Using Ambient Mass Spectrometry Imaging</i>	Developing New Imaging Tools to Detect Skin Cancer
	Noga Ron-Harel, PhD	Technion, Israel Institute of Technology	<i>Engaging Cellular Metabolism to Enhance T Cell Therapy in Aged Patients</i>	Investigating the Effect of Aging on the Efficacy of Immunotherapy
	Rotem Rubinstein, PhD	Tel Aviv University	<i>Structural Biology of VISTA - an Immune Checkpoint Inhibitor</i>	Immunology and Immunotherapy
	Yoav Shaul, PhD	Hebrew University of Jerusalem	<i>The Essential Role of Dihydropyrimidines in Breast Cancer Progression</i>	Breast Cancer Metastasis
	Efrat Shema, PhD	Weizmann Institute of Science	<i>Deciphering the Epigenome of Gliomas Driven by Oncohistones and IDH Mutations</i>	Inflammation and Cancer, Pancreatic Cancer and Melanoma
	Yonatan Stelzer, PhD	Weizmann Institute of Science	<i>Studying Non-Canonical Expression of IGF2 and its Role in Tumorigenesis</i>	Epigenetics in Cancer Biology
ACCELERATION GRANTS	Lucio Frydman, PhD	Weizmann Institute of Science	<i>Deuterium Metabolic MRI: An Emerging Radiation-Free Surrogate of PET</i>	Improving Imaging for Early Detection of Cancer
	Yael Mardor, PhD	Chaim Sheba Medical Center	<i>BBB Disruption by Low Pulsed Electric Fields for Antibodies Delivery to Brain Metastases</i>	Breast Cancer that has Metastasized to the Brain

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RESEARCH PROFESSORSHIP GRANTS	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>	Development of a Drug to Eradicate Leukemia Stem Cells
	Howard Cedar, MD, PhD	Hebrew University/ Hadassah Medical School	<i>Regulation of Gene Expression in Animal Cells</i>	Molecular Genetics
	Aaron Ciechanover, MD, DSc	Technion, Israel Institute of Technology	<i>Unraveling the Tumor-Suppressing Mechanisms Involved in Ubiquitin-Mediated Activation of NF-kappaB</i>	Ubiquitin System, NF-κB Protein, Involvement in Inflammation and Cell Proliferation
	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
	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
	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

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RESEARCH PROFESSORSHIP GRANTS (continued)	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
PROJECT GRANTS	Ronen Alon, PhD	Weizmann Institute of Science	<i>A-Type Lamins in Melanoma Invasion, Pulmonary Extravasation, and Lung Metastasis</i>	Skin Cancer and Metastasis to the Lungs
	Gil Ast, PhD	Tel Aviv University	<i>Long and Short Introns Reside in Different Nuclear Subcompartments</i>	Computational Biology, Genetics and Genomics
	Naama Barkai, PhD	Weizmann Institute of Science	<i>The Contribution of Histone Chaperone to Nucleosome Exchange within Cells</i>	Genomic Instability and DNA Repair
	Sivia Barnoy, RN, PhD	Tel Aviv University	<i>Cascade Screening for Hereditary Breast and Ovarian Cancer and Lynch Syndrome in Israel</i>	Breast, Ovarian and Colorectal Cancers
	Irit Ben Aharon, MD, PhD	Rambam Health Care Campus	<i>Cancer and Pregnancy: Role of Vascular Toxicity in Chemotherapy-Induced Placental Insult</i>	Chemotherapy, Cancer and Pregnancy
	Shamgar Ben-Eliyahu, PhD	Tel Aviv University	<i>A Novel Clinical Perioperative Intervention to Improve DFS in Colorectal Cancer Patients</i>	Colorectal Cancer
	Ittai Ben-Porath, PhD	Hebrew University of Jerusalem	<i>Roles of p16 and Senescence in the Epidermal UV Radiation Response and Early Tumorigenesis</i>	Skin Cancer

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PROJECT GRANTS (continued)	Michael Berger, PhD	Hebrew University of Jerusalem	<i>Generating Metabolically Superior T Cells as Novel Immunotherapy to Treat Solid Tumors</i>	Improving Immunotherapy
	Benjamin Berman, PhD	Hebrew University of Jerusalem	<i>Tracking DNA Methylation Loss to Understand the Origins and Evolution of a Tumor</i>	Identification of New Cancer Biomarkers
	Rony Dahan, PhD	Weizmann Institute of Science	<i>Dendritic Cell Targeted Agonists for Cancer Immunotherapy</i>	Immunology and Immunotherapy
	Michael Elkin, PhD	Hadassah University Medical Center	<i>Metabolic Endotoxemia: A New Molecular Target between Obesity and Breast Cancer</i>	Obesity and Breast Cancer
	Ayelet Erez, MD, PhD	Weizmann Institute of Science	<i>Preventing Cancer Cachexia by Regulating Amino Acid Metabolism</i>	Preventing Loss of Skeletal Muscle due to Cancer Treatment
	Neta Erez, Ph.D.	Tel Aviv University	<i>Uncovering the Role of Stromal and Immune Cells in the Lung Metastatic Niche of Breast Cancer</i>	Breast Cancer Metastasis to the Lungs
	Hava Gil-Henn, PhD	Bar-Ilan University	<i>A Peptide-Based Approach for Blocking Breast Cancer Metastasis</i>	Breast Cancer Metastasis
	Zvi Granot, PhD	Hebrew University of Jerusalem	<i>Neutrophil Specific Targeting of TORC1 Signaling as a Novel Mode of Cancer Immunotherapy</i>	Immunology and Immunotherapy
	Shoshana Greenberger, MD, PhD	Chaim Sheba Medical Center	<i>Role of Melanosomes in Tumor-Associated Lymphangiogenesis and Immune Tolerance</i>	Skin Cancer



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PROJECT GRANTS (continued)	Avi-Hai Hovav, PhD	Hebrew University of Jerusalem	<i>A Shift in Epithelial Antigen-Presenting Cells Drives Oral Squamous Cell Carcinoma</i>	Oral Carcinoma
	Tomer Kalisky, PhD	Bar-Ilan University	<i>Characterizing Cellular Heterogeneity in Renal Cell Carcinoma Using Single-Cell Genomics</i>	Kidney Cancer
	Nathan Karin, PhD	Technion, Israel Institute of Technology	<i>CXCL10 as a Positive Immune Checkpoint for Effector CD8+ T Cells in Cancer Immunotherapy</i>	Immunology and Immunotherapy for Melanoma
	Yaacov Lawrence, MBBS	Chaim Sheba Medical Center	<i>Mechanistic Exploitation of Metabolic Rewiring Overcomes Radioresistant Pancreatic Cancer</i>	Radiation-Resistant Pancreatic Cancer
	Dan Levy, PhD	Ben-Gurion University of the Negev	<i>Role of Lysine Methylation in the Regulation of Mitotic Events under Replication Stress</i>	Genomic Instability and DNA Repair
	David Meiri, PhD	Technion, Israel Institute of Technology	<i>Antitumoral Effects of a Distinct Combination of Cannabinoids via Notch1 Pathway in T-ALL</i>	Cannabinoids and Blood Cancers
	Michael Milyavsky, PhD	Tel Aviv University	<i>Characterization and Targeting of a Novel Epigenetic Circuit in Acute Leukemia</i>	Pediatric Leukemia
	Niv Papo, PhD	Ben-Gurion University of the Negev	<i>Map Ligand Binding Selectivity Landscapes toward Engineering Target-Specific Inhibitors</i>	Engineering novel inhibitors for chemical targets in cancer therapy

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PROJECT GRANTS <i>(continued)</i>	Yoram Reiter, PhD	Technion, Israel Institute of Technology	<i>Overcoming Resistance to CAR-T cell Therapy due to Antigen Modulation by New Receptors</i>	Improving Immunotherapy
	Rina Rosin-Arbesfeld, PhD	Tel Aviv University	<i>Targeting Wnt Signaling in Hematological Malignancies</i>	Blood Cancers
	Ruth Scherz-Shouval, PhD	Weizmann Institute of Science	<i>Dissecting the Stromal Landscape of Colitis-Associated Cancer</i>	Colorectal Cancer
	Thomas Schultheiss, MD, PhD	Technion, Israel Institute of Technology	<i>An In Vivo Model for Studying Mesenchymal-to-Epithelial Transition (MET)</i>	Metastasis
	Joel Yisraeli, PhD	Hebrew University of Jerusalem	<i>Developing a Small Molecule Inhibitor for Igf2bp1 – A Novel Targeted Therapy for Lung Carcinoma</i>	Targeted Therapy for Lung Cancer
POSTDOCTORAL FELLOWSHIPS	Aviad Ben-Shmuel, PhD	Weizmann Institute of Science	<i>Elucidating the Modulation of Natural Killer Cells by the Cancer Stroma in Breast Cancer</i>	Breast Cancer
	Ofer Elhanani, PhD	Weizmann Institute of Science	<i>Revealing Tumor-Clone Interactions in Melanoma using Multiplexed Ion Beam Imaging</i>	Skin Cancer
	Tal Falick Michaeli, MD	Hebrew University of Jerusalem	<i>Epigenetic Landscape in the Metastatic Liver Before and After Hepatic Resection</i>	Colorectal Cancer and Metastasis to the Liver

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POSTDOCTORAL FELLOWSHIPS (continued)	Lina Jaber, PhD	Hebrew University of Jerusalem	<i>Dissecting the Role of Tumor Suppressor WWOX in Antagonizing Pancreatic Cancer</i>	Pancreatic Cancer
	Lirin Michaeli, PhD	Tel Aviv University	<i>SUMO Regulation on UPRmt and Apoptosis Resistance</i>	New Targets for Cancer Treatment
	Adi Reches, PhD	Hebrew University of Jerusalem	<i>rRNA 2'-O-Methylation as a Regulator of Leukemia Growth and a Potential Therapeutic Target</i>	Leukemia