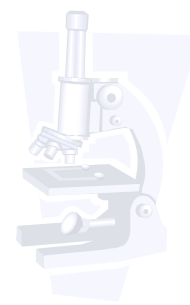


ICRF



RESEARCH AWARDS 2005-2006

For the fiscal year, **2005-2006**, the Israel Cancer Research Fund/ICRF has allocated **\$1.875 million** to support **60 projects**:

- 3 Professorships**
- 1 Clinical Research Career Development Award (CRCDA)**
- 12 Research Career Development Awards (RCDAs)**
- 1 Barbara S. Goodman Endowed RCDA in Pancreatic Cancer**
- 24 Project Grants**
- 13 Fellowships**

Since awarding its first cancer research grants in 1977, the ICRF has funded **1526 awards** valued at a total of **\$31.435 million**.

ICRF-sponsored awards are determined by the Scientific Review Panel (SRP). Comprised of leading scientists in fields related to cancer research, the SRP meets annually to review applications submitted to the Fund. Their criteria are based upon the scientific merit of the project, demonstrated ability of the investigator, and suitability of the institution.

Among the areas of cancer research directly sponsored by ICRF in 2005-2006 are: studies in brain, breast, colorectal, eye, gastrointestinal, liver, lung, kidney, pancreatic, prostate, and skin cancers; anticancer drug mechanisms, multi-drug resistance, and targeted therapy; leukemia, lymphoma, blood cells, and tumor blood vessel growth (angiogenesis); bone marrow transplantation; expression, regulation, and mutation of genes; growth factors, growth control, and tumor metastasis; viruses, immunotherapy, and vaccine development; protein interactions; oncogenes and tumor suppressor genes, such as p53; and programmed cell death (apoptosis).

Following is a complete listing of ICRF cancer research studies funded during 2005-2006.

PROFESSORSHIPS

AWARD	DESCRIPTION
<p>THE SAMUEL UNGERLEIDER RESEARCH PROFESSORSHIP ICRF U.S., New York Howard Cedar, M.D., Ph.D. Hebrew University/Hadassah Medical School Regulation of Gene Expression in Animal Cells 19th Year</p>	<p>Tumors result from an imbalance in the gene regulation machinery of the cell. This study's objective is to learn how and why genes are turned on and off during development.</p>
<p>THE HARVEY & GLORIA KAYLIE RESEARCH PROFESSORSHIP IN MEMORY OF THEIR FRIENDS, HELA & SIMSON STOLZ ICRF U.S., New York Aaron Ciechanover, M.D., D.Sc. Technion, Israel Institute of Technology Aberrant Ubiquitin-Mediated Regulation of Apoptosis in Prostate Cancer 3rd Year</p>	<p>Using prostate cancer cells, both in culture and laboratory animals, this researcher will study the mechanisms that enable cancer cells to evade death and continue to metastasize during chemotherapy and radiotherapy treatments.</p>
<p>THE NATHAN GALSTON RESEARCH PROFESSORSHIP ICRF U.S., Los Angeles Avram Hershko, M.D., Ph.D. Technion, Israel Institute of Technology Control of Cell Division by Ubiquitin-Mediated Protein Degradation 4th Year</p>	<p>Proteins in cells are tagged for degradation by being linked to a small protein called ubiquitin. This scientist's work is aimed at understanding the multiple roles of the ubiquitin system in the control of cell division.</p>

CLINICAL RESEARCH CAREER DEVELOPMENT AWARD

AWARD	DESCRIPTION
<p>THE SOL WEISMAN MEMORIAL AWARD ICRF U.S., New York Itay Chowers, Ph.D. Hadassah University Hospital Functional Genomic Approach to Investigate Uveal Melanoma Metastases Development 1st Year</p>	<p>The goal of this research project is to obtain a better understanding of the molecular mechanisms underlying metastasis formation in uveal melanoma, the most common primary eye malignancy in adults, in order to develop novel therapies for this disease.</p>

RESEARCH CAREER DEVELOPMENT AWARDS

AWARD	DESCRIPTION
<p>THE SCOTIABANK AWARD ICRF Canada, Toronto Uri Abdu, Ph.D. Ben-Gurion University of the Negev The Role of DNA Damage Proteins Hus1 and Chk2 in the Drosophila Meiotic Checkpoint 2nd Year</p>	<p>Mutations in DNA repair genes and cell cycle checkpoints have been implicated in the formation of certain cancers. This researcher is using the fruit fly as a model system in order to study the signaling events that take place when DNA becomes damaged during cell division.</p>
<p>THE LEAH AND JACK SUSSKIND AWARD ICRF U.S., New York Ami Aronheim, Ph.D. Technion, Israel Institute of Technology Characterization the Role of c-Jun Inhibitor in Human Cancer 5th Year</p>	<p>The aim of this project is to examine the function of JDP2, a novel protein originally identified in this scientist's laboratory, in malignant transformation. It is thought that this protein may play an important role in inhibiting other proteins that promote cells to become malignant.</p>
<p>THE SCHULWEIS FAMILY FOUNDATION AWARD ICRF U.S., New York Nir Ben-Tal, D.Sc. Tel-Aviv University Surface-Mapping of Phylogenetic Information on Proteins 5th Year</p>	<p>Binding of one protein to another is a phenomenon observed in all types of cancer, yet the principles governing protein interactions are not fully understood. This researcher will analyze protein surfaces and inter-protein interfaces to elicit the atomic details of the interactions and to relate the protein's activity in cancer to its structure.</p>
<p>THE BARBARA S. GOODMAN ENDOWED RCDA IN PANCREATIC CANCER ICRF U.S., New York Yuval Dor, Ph.D. Hebrew University/Hadassah Medical School The Origins and Dynamics of Pancreatic Cancer: A Mouse Modeling Approach 1st Year</p>	<p>Using transgenic mouse models, this scientist will seek answers to many questions regarding the pathogenesis of this disease. In particular, what cell type in the pancreas gives rise to cancer? The answer to this question may be the key to earlier diagnosis and better treatment.</p>
<p>THE LOLA, HEINRICH, AND ERICH SCHAFRANIK MEMORIAL AWARD ICRF U.S., New York Ehud Gazit, Ph.D. Tel-Aviv University The Role of Protein Folding and Stability in Type I VHL Syndrome 4th Year</p>	<p>Tumor-suppressor proteins play a central role in the development of human cancer. This investigator is studying the structure and stability of the von Hippel-Lindau (VHL) tumor-suppressor protein, which is involved in the normal assembly of parts of the cellular matrix.</p>

AWARD	DESCRIPTION
<p>THE RESEARCH FELLOWSHIP CIRCLE AWARD ICRF Canada, Toronto Marcelle Machluf, Ph.D. Technion, Israel Institute of Technology Polymeric Delivery System for the Delivery of Endogenous Proteins – New Therapy Approach for Brain Tumor 1st Year</p>	<p>Angiogenesis is the process in which new blood vessels develop from a pre-existing vascular network. This laboratory focuses on developing different, natural polymer technologies in order to deliver anti-angiogenic factors for brain cancer therapy.</p>
<p>THE SCOTIABANK AWARD ICRF Canada, Toronto Nir Osherov, Ph.D. Tel-Aviv University Better Understanding and Treatment of Aspergillosis, a Major Killer of Neutropenic Cancer Patients 1st Year</p>	<p>The mold <i>Aspergillus fumigatus</i> commonly infects the lungs of cancer patients under-going chemotherapy and bone-marrow transplantation, and is the leading cause of death in leukemia and bone-marrow transplant patients. Studying the process of lung infection at the cellular and molecular levels should lead to new ways to treat this type of infection.</p>
<p>THE TOWER OF HOPE BALL AWARD IN HONOR OF DRs. STEPHEN & HELEN COLEN, TONY KUSHNER, AND DR. ELIE WIESEL ICRF U.S., New York Eli Pikarsky, M.D., Ph.D. Hadassah University Hospital Is NF-κB the Missing Link Between Inflammation and Neoplasia? 2nd Year</p>	<p>This investigator will use a mouse model to study the mechanisms by which chronic inflammation leads to cancer. By uncovering the steps to the transformation process, he hopes to identify specific molecular events that can be stopped, thus preventing cancer.</p>
<p>THE POLA AND HENRY LAND MEMORIAL AWARD ICRF U.S., New York Angel Porgador, Ph.D. Ben-Gurion University of the Negev Cancer Vaccines Based on Mucosal Application of Recombinant Bacterial Vaccine Vectors 5th Year</p>	<p>Many cancers metastasize to mucosal sites, such as the lung or gastrointestinal tract, and primary or secondary tumors in those areas are the most common cause of cancer-related mortality. This scientist will use a mouse model to administer an oral, bacteria-based vaccine with the hope of stimulating an immune response against tumor cells growing in mucosal organs.</p>
<p>THE HARRY C. WILF MEMORIAL AWARD ICRF U.S., New York Ram Reshef, Ph.D. Technion, Israel Institute of Technology Regulation of Pax-2 and WT1 in Kidney Development 3rd Year</p>	<p>This researcher seeks a better understanding of the embryonic and molecular mechanisms that govern the expression of early kidney genes. Disruption of these genes' regulatory processes may lead to tumor formation as well as urogenital malformation.</p>

AWARD	DESCRIPTION
<p>THE DR. DANIEL G. MILLER MEMORIAL AWARD ICRF U.S., New York Rina Rosin-Arbesfeld, Ph.D. Tel-Aviv University Functional Analysis of the APC Tumor Suppressor Protein Truncations and Restoration of Wild Type APC 1st Year</p>	<p>Mutations in the tumor-suppressor protein APC cause the majority of colorectal cancers. This scientist seeks a better understanding of the molecular events that cause these mutations, and will then try to restore the normal function of this protein using aminoglycoside antibiotics.</p>
<p>THE ROSE GARFIN MEMORIAL AWARD ICRF U.S., New York Yehuda Tzfati, Ph.D. Hebrew University of Jerusalem Telomerase Dysfunction in Hoyeraal-Hreidarsson Syndrome 2nd Year</p>	<p>Telomerase is an enzyme activated in most cancers to enable unlimited cell proliferation. This investigator will study the molecular mechanisms underlying a rare genetic disease in order to understand the consequences of telomerase inactivation on cell transformation and cancer.</p>
<p>THE WOMEN OF ACTION AWARD IN HONOR OF LINDA FAIRSTEIN, TOVAH FELDSHUH, AND MILDRED GERSHEN ICRF U.S., New York Ronit Yarden, Ph.D. Chaim Sheba Medical Center The Role of BRCA1 in Cell Cycle Checkpoint Regulation: Interplay with Chk1 2nd Year</p>	<p>Cell cycle checkpoints are elaborate surveillance mechanisms developed in cells to halt cell division after DNA is damaged, until the DNA is repaired and intact. The goal of this project is to understand the role of the BRCA1 gene in cell cycle checkpoint control, and how it operates as a tumor suppressor.</p>

FELLOWSHIPS

AWARD	DESCRIPTION
<p>THE HARVEY & GLORIA KAYLIE FELLOWSHIP IN FOND MEMORY OF HOWARD MARTIN LANE, OUR "UNCLE" AND SOURCE OF TRUTH ICRF U.S., New York Shifra Ash, M.D. Schneider Children's Medical Center Immunotherapy to Neuroblastoma using Allogeneic Bone Marrow Transplantation and Dendritic Cells 2nd Year</p>	<p>Neuroblastoma, the most common extra-cranial solid tumor in children, is usually treated by a combination of surgery, chemotherapy, and radiation, but these conventional forms of treatment are not always successful. This clinician proposes to induce an immunotherapeutic reaction by means of a specialized bone marrow transplantation procedure.</p>

AWARD	DESCRIPTION
<p>THE HARVEY & GLORIA KAYLIE FELLOWSHIP IN FOND MEMORY OF ROSE ARANOWITZ SCHOENBLUM, OUR BELOVED AUNT ICRF U.S., New York Leah Baraz, Ph.D. Hadassah University Hospital Regulation of Heparanase Gene Expression by Tumor Suppressor p53 1st Year</p>	<p>Increased expression of the human enzyme heparanase is associated with tumor formation, metastasis, and vascularization. This investigator will study how the various forms of the p53 tumor-suppressor gene regulate heparanase expression.</p>
<p>THE HARVEY & GLORIA KAYLIE FELLOWSHIP IN HONOR OF OUR MOTHER, TESSIE ARANOWITZ KAYLIE, OUR SOURCE OF CARING AND INSPIRATION ICRF U.S., New York Yuval Cinnamon, Ph.D. Hebrew University of Jerusalem Study of Ubiquitination of Midbody Proteins During Cytokinesis 1st Year</p>	<p>This research project focuses on gaining a better understanding of cytokinesis, the final step in the cell division process. Defects in cytokinesis can destabilize the genome, and may significantly increase the incidence of cancer.</p>
<p>THE WOMEN OF ACTION 2005 FELLOWSHIP ICRF Canada, Toronto Orna Dahan, Ph.D. Tel-Aviv University Regulating a LIM-Based Transcription Complex by Protein Degradation 2nd Year</p>	<p>Many genes in mammals have counterparts in lower organisms. This scientist will use the fruit fly as a model system to examine the role of a set of genes that are involved in the formation of T-cell acute lymphoblastic leukemia when their function is disrupted.</p>
<p>THE HARVEY & GLORIA KAYLIE FELLOWSHIP IN HONOR OF FLORENCE AND MICHAEL EDELSTEIN, TWO VERY CARING AND BEAUTIFUL PEOPLE, WHO KNOW THE MEANING OF CHESED ICRF U.S., New York Ayelet Erez, M.D. Chaim Sheba Medical Center The SIL Gene in Neoplasia 2nd Year</p>	<p>SIL, a gene necessary for cellular growth, proliferation, and survival, has recently been discovered to be one of 17 genes that, when overexpressed, predict metastatic spread. This investigator will further study the SIL gene in order to shed light on mechanisms of metastasis in a variety of tumor systems.</p>
<p>THE FANYA GOTTESFELD HELLER FELLOWSHIP IN HONOR OF SOPHIE HANINA ICRF U.S., New York Maya Groysman, Ph.D. Hebrew University/Hadassah Medical School Wnt Signaling in the Control of Neural Crest Delamination 2nd Year</p>	<p>This researcher is investigating the molecular mechanisms that regulate the evolution and transformation of various cell types during development; processes that parallel malignant transformation and metastasis in cancer.</p>

AWARD	DESCRIPTION
<p>THE MARC & ELAINE OPPENHEIMER FELLOWSHIP IN MEMORY OF NORMAN G. BOGG ICRF U.S., New York Myriam Grunewald, Ph.D. Hebrew University/Hadassah Medical School Circulating Cells-Assisted Angiogenesis: Mechanisms and Potential Targets 1st Year</p>	<p>Tumors depend upon the growth of new blood vessels in order to support the growth of the tumor cell mass. This process, termed angiogenesis, is assisted by the recruitment of circulating cells. This researcher seeks to elucidate the activities of these accessory cells in order to identify potential targets for anti-angiogenic therapy.</p>
<p>THE ELEANOR & MICHAEL WALZER FELLOWSHIP ICRF U.S., New York Tal Meir, Ph.D. Hadassah University Hospital Intra-Tumor Gene Expression Variation Association with Metastases and Microcirculation Patterns in Uveal Melanoma 2nd Year</p>	<p>Uveal melanomas, the most common form of eye malignancy, often result in liver metastases that can be fatal. The goal of this study is to gain a better understanding of the molecular pathways which underlie the development of metastasis. This could potentially lead to better predictions of prognosis as well as more targeted therapies.</p>
<p>THE SIMON S. KAMINETSKY FELLOWSHIP IN HONOR OF ANITA AND RABBI ALEX KAMINETSKY ICRF U.S., New York Masha Prager-Khoutorsky, Ph.D. Weizmann Institute of Science Development of Novel Approach for Modulating Mechanosensitive Cell Migration of Tumor Cells 1st Year</p>	<p>This investigator is focusing on the process of cell migration; that is, the ability of cells to move through tissue. A better understanding of the mechanisms of cell migration in both normal and cancer cells should lead to the design of specific treatments to regulate the invasive and metastatic activity of tumor cells.</p>

PROJECT GRANTS

AWARD	DESCRIPTION
<p>THE BEVERLEY FRIEDMAN AWARD ICRF Canada, Montreal Michal Baniyash, Ph.D. Hebrew University/Hadassah Medical School TCR ζ Chain Downregulation as a Marker for Detecting Immunosuppression Generated in Tumor- Bearing Hosts: Clinical Implications 1st Year</p>	<p>T lymphocytes, white blood cells that play a major role in immune responses directed against foreign substances, are functionally impaired in disorders associated with chronic inflammation, such as cancer. This scientist will use a mouse model system to study the molecular biological mechanisms related to chronic inflammation and immunosuppression in order to advance the success rate of cancer immunotherapy.</p>

AWARD	DESCRIPTION
<p>THE PATTY FRANKLIN MEMORIAL AWARD IN HONOR OF SAM & DOROTHY CHILKOV ICRF U.S., Los Angeles Rachel Bar-Shavit, Ph.D. Hadassah University Hospital The Role of Human Protease Activated Receptor1 (hPar1) in Mammary Gland Morphogenesis, Tumor Progression and Angiogenesis 2nd Year</p>	<p>This researcher has identified a target molecule in tumor progression, termed Human Protease Activated Receptor 1 (or hPar1), and will study the potential role of hPar1 overexpression in the development of mammary gland tumors.</p>
<p>THE KOFFLER FAMILY AWARD ICRF Canada, Toronto Eitan Bibi, Ph.D. Weizmann Institute of Science Multidrug Recognition and Transport by the E. coli Mdr Transporter MdfA 2nd Year</p>	<p>Multidrug resistance (Mdr) to chemotherapeutic agents involves the activity of a diverse family of cell membrane transporters. This investigator will use a bacterial model to study this process at the molecular level with the ultimate goal of developing drugs that may inhibit Mdr function.</p>
<p>THE UNION MUTUAL FOUNDATION AWARD ICRF U.S., New York Eli Canaani, Ph.D. Weizmann Institute of Science Targets of Normal and Leukemic ALL-1 2nd Year</p>	<p>The ALL-1 gene is directly involved in acute leukemia, particularly in infants. The goal of this project is to understand how the altered gene causes cancer.</p>
<p>THE DR. SELVYN BLEIFER, DR. BENJAMIN BONAVIDA, AND SORRELL TROPE HONORARY AWARD ICRF U.S., Los Angeles Rivka Dikstein, Ph.D. Weizmann Institute of Science Control of NF-κB Target Genes by DSIF, A Transcription Elongation Inhibitor 1st Year</p>	<p>In cancer, some proteins are produced in abnormal quantities, causing cells either to proliferate in an uncontrolled manner or to decrease their death rate. This scientist will explore the molecular machinery that regulates protein production in the body in order to further our understanding of the biological processes involved in cancer formation.</p>
<p>THE KOFFLER FAMILY AWARD ICRF Canada, Toronto Lea Eisenbach, Ph.D. Weizmann Institute of Science The Role of 1-8 Interferon Inducible Genes in Tumor Progression 1st Year</p>	<p>This researcher has found that a family of proteins termed 1-8 interferon inducible appear to reduce the division of cells and inhibit cancerous changes. The goal of this project is to study in depth the anticancer properties of these proteins in order to design potential new therapies for colon cancer.</p>

AWARD	DESCRIPTION
<p>THE RACHEL'S SOCIETY AWARD IN HONOR OF DR. MONA ACKERMAN, MARALYN & ISIDORE FRIEDMAN, FANYA GOTTESFELD HELLER, DRS. JULIE & HAL MITNICK, RITA & FRED RICHMAN, AND JUDITH & ISAAC SHERMAN ICRF U.S., New York Ari Elson, Ph.D. Weizmann Institute of Science Molecular Studies of the Role of Tyrosine Phosphatase Epsilon in Supporting Mammary Tumorigenesis 1st Year</p>	<p>This laboratory studies the molecular details of how information is processed in breast cancer cells through the activity of the enzyme tyrosine phosphatase epsilon, with the ultimate goal of contributing to development of new treatments to fight this disease.</p>
<p>THE SALLY & MICHAEL GORDON PROGRAM FOR CELL BIOLOGY AWARD ICRF U.S., New York Shlomit Erlich, Ph.D. Tel-Aviv University Mechanism of ErbB and Ras Mediated Cell Proliferation 1st Year</p>	<p>Ras and ErbB are two genes associated with cancer and the regulation of cell growth. This scientist will study the interaction of these two genes with the ultimate goal of finding a new target for anticancer drugs.</p>
<p>THE ADRIANNE & JERRY L. COHEN AWARD ICRF U.S., New York Zelig Eshhar, Ph.D. Weizmann Institute of Science Activation of T-Bodies by Neurotransmitters for Adoptive Cancer Therapy 2nd Year</p>	<p>Most cancers, especially in their advanced stages, evade the body's immune surveillance system. This investigator will attempt to modify specific white blood cells called T-cells and genetically program them to recognize and kill metastatic breast and prostate cancer tumors.</p>
<p>THE NEXT GENERATION AWARD ICRF Canada, Montreal Abraham Fainsod, Ph.D. Hebrew University/Hadassah Medical School The Caudal Genes in Blood Formation and Leukemia 2nd Year</p>	<p>Mutation of the caudal genes can lead to the loss of blood stem cell formation. This researcher will study in detail the role of the caudal genes in blood formation in order to better understand the role that these genes play in the development of leukemia.</p>
<p>THE MARIE BONAVIDA AWARD ICRF U.S., Los Angeles Alberto Gabizon, M.D., Ph.D. Shaare Zedek Medical Center Liposomal Delivery of Vitamin D3 to Enhance Therapeutic Efficacy in Cancer 2nd Year</p>	<p>Vitamin D3 has demonstrated significant anti-tumor ability, but extremely high doses can be lethal. The goal of this project is to improve the delivery of Vitamin D3 to tumors and to reduce its potential toxicity to the rest of the body by entrapping the molecules in sub-microscopic fatty bubbles known as liposomes.</p>

AWARD	DESCRIPTION
<p>THE STEPHEN BRONFMAN AWARD ICRF Canada, Montreal Offer Gerlitz, Ph.D. Hebrew University/Hadassah Medical School Identification of Wg Target Genes that Play a Role in Regulation of Growth and Survival 1st Year</p>	<p>The Wnt signaling pathway plays a crucial role in directing cell fate during development. Inappropriate activation of this pathway is implicated in a variety of human cancers, including breast and colon carcinomas. This investigator will use the fruit fly as a model system to identify Wnt target genes that may provide additional insights into cancer initiation and progression.</p>
<p>THE FRANCINE & ALBERT MEYER AWARD IN HONOR OF MARY & ROBERT J. MEYER ICRF U.S., New York Dan Gibson, Ph.D. Hebrew University of Jerusalem Preparation and Pharmacological Evaluation of Novel Non-Classical Water Soluble Platinum Drugs 1st Year</p>	<p>Cisplatin and Carboplatin are two of the most widely-used chemotherapeutic agents against testicular, ovarian, and other cancers, but many patients initially helped by this treatment later develop drug resistance. This scientist will design, prepare, and test a new class of compounds aimed at circumventing resistance to platinum drugs.</p>
<p>THE SALLY & MICHAEL GORDON PROGRAM FOR CELL BIOLOGY AWARD ICRF U.S., New York Yoav Henis, Ph.D. Tel-Aviv University Interactions and Endocytosis of Growth-Inhibitory Receptors 2nd Year</p>	<p>Growth factors are substances that promote the growth of an organism. This study deals with Transforming Growth Factor-B and how it regulates growth. Uncontrolled cell growth may lead to cancer.</p>
<p>THE JOEL BARRY CANTER MEMORIAL AWARD ICRF U.S., New York Joel Hirsch, Ph.D. Tel-Aviv University Structural Studies of Gem, a Novel Small G-Protein 1st Year</p>	<p>The research in this lab focuses on elucidating the three-dimensional structure of the RGK subfamily of proteins and its relationship to function in order to devise methods to influence the subfamily's effect on cancer and other signaling mechanisms.</p>
<p>THE BOGEN/OSSERMAN FAMILY FRIENDSHIP AWARD ICRF U.S., New York Nurit Hollander, Ph.D. Tel-Aviv University Effector Mechanisms in the Protection Against Plasma Cell Tumors 2nd Year</p>	<p>A better understanding of the immune mechanisms involved in protection against plasma cell tumors will help in the design of vaccines that recruit the appropriate effector mechanisms. This researcher will analyze the effector mechanisms and the therapeutic potential of different immunotherapeutic vaccines in order to design improved treatment regimens.</p>

AWARD	DESCRIPTION
<p>THE WOMEN OF ACTION AWARD IN HONOR OF JACQUELINE BELL, DR. DEBRA R. JUDESON, LAUREN LEICHTMAN, AND DEBBIE ALLEN ICRF U.S., Los Angeles Mikhail Kolot, Ph.D. Tel-Aviv University Recruitment of a Phage Site-Specific Recombination System for Eukaryotic Gene Manipulations 2nd Year</p>	<p>Cancer often results from a combination of genetic events that include mutations, chromosomal rearrangements, and/or gene insertions. The aim of this project is to develop an improved system of gene insertions in mammalian cells for the treatment of cancers as well as hereditary defects.</p>
<p>THE NORMAN I. WEISMAN AND PEARLA LULINSKI WEISMAN AWARD ICRF U.S., New York Martin Kupiec, Ph.D. Tel-Aviv University Telomere Length Control and Genome Stability 1st Year</p>	<p>Telomeres, the natural ends of chromosomes, get short with every generation, and die when they reach a certain threshold. In cancer cells, telomeres do not shorten, and cells keep dividing, thus forming tumors. This researcher is trying to gain a better understanding of the mechanisms that rule telomere length.</p>
<p>THE TED ARISON FAMILY FOUNDATION AWARD ICRF Israel Sara Lavi, Ph.D. Tel-Aviv University Production and Significance of Extrachromosomal spcDNA Molecules Consisting of Multimeric Repeats 1st Year</p>	<p>Small polydispersed circular DNA (spcDNA) is present at low levels in normal tissues, and rises dramatically in tumors, but how these molecules are formed is not well understood. This investigator will try to elucidate the mechanisms of spcDNA formation, as well as study its biological role in the initiation and progression of the carcinogenic process.</p>
<p>THE NEW LEADERSHIP AWARD ICRF Canada, Montreal Haya Lorberboum-Galski, Ph.D. Hebrew University/Hadassah Medical School Targeted B-Cell Malignancies Therapy by Novel Apoptosis-Inducing Chimeric Proteins 1st Year</p>	<p>Targeted cancer therapies offer the potential to treat and kill malignant cells, while leaving normal cells intact. This scientist will produce and test novel, targeted, anti-tumor molecules for the treatment of B-cell malignancies, which affect the blood and lymphatic systems.</p>
<p>THE LADIES GOLF AWARD ICRF Canada, Montreal Hanah Margalit, Ph.D. Hebrew University/Hadassah Medical School Implications of MicroRNAs in Cancer 2nd Year</p>	<p>By developing sophisticated computer algorithms and applying them to the human genome sequence – a process known as bioinformatics – this investigator will look for a possible relationship between a new group of genes and cancer.</p>

AWARD	DESCRIPTION
<p>THE MADOFF FAMILY FOUNDATION AWARD ICRF U.S., New York Ramit Mehr, Ph.D. Bar-Ilan University Analysis of Immunoglobulin Gene Lineage Trees in B Cell Lymphomas 2nd Year</p>	<p>This researcher will use a novel, bioinformatic method of graphic analysis to study immunoglobulin (Ig) gene diversification in B cell lymphomas that should lead to new insights into disease progression and that may provide better diagnostic and prognostic tools.</p>
<p>THE SALLY & MICHAEL GORDON PROGRAM FOR CELL BIOLOGY AWARD ICRF U.S., New York Doron Melamed, Ph.D. Technion, Israel Institute of Technology The Role of Ligand-Independent Tonic Signals in Altering Fate Decisions of Transformed B Cells 1st Year</p>	<p>The goal of this project is to gain a better understanding of the processes that regulate B lymphocyte development. Identifying these mechanisms should contribute to the design of immunotherapy techniques to treat B lymphocyte leukemia and autoimmune diseases.</p>
<p>THE LAUREN B. LEICHTMAN AND ARTHUR E. LEVINE FAMILY FOUNDATION AWARD ICRF U.S., Los Angeles Esther Priel, D.Sc. Ben-Gurion University of the Negev An Anti-Retroviral Approach as a Possible Strategy for the Treatment of Adult T Cell Leukemia 1st Year</p>	<p>Adult T Cell Leukemia is a disease induced by a virus. This investigator will test whether specific anti-viral drugs that inhibit the virus and prevent its replication might also prevent the development of the disease.</p>
<p>THE WOMEN OF ACTION 2005 AWARD ICRF Canada, Toronto Dina Raveh, Ph.D. Ben-Gurion University of the Negev Control of Cell Proliferation by Inhibition of SCF Ubiquitylation Activity 2nd Year</p>	<p>Cell division is a highly-regulated process with multiple checkpoints. When this system goes awry, tumors form and cells divide in an uncontrolled manner. This scientist will use yeast as a model system to study a protein involved in cell cycle progression that, under certain conditions, may prevent cell division.</p>
<p>THE HERZFELD-BRESSLER FAMILY AWARD ICRF U.S., New York Shoshana Ravid, Ph.D. Hebrew University/Hadassah Medical School The Role of PAK1 and ROCK in the Regulation of Myosin II in Chemotaxis and Cell Polarity of Metastatic Tumor Cells 1st Year</p>	<p>In the metastasis process, cells undergo remodeling that allows them to migrate from the original tumor to other sites in the body where they form secondary tumors. This researcher will focus on the proteins and pathways that lead to cellular remodeling, with the ultimate goal of developing drugs that may inhibit metastasis.</p>

AWARD	DESCRIPTION
<p>THE BRAUSE FAMILY AWARD ICRF U.S., New York Reuven Reich, Ph.D. Hebrew University of Jerusalem Novel Oxamic Acid-Derived MMP Inhibitors in Cancer 1st Year</p>	<p>Matrix metalloproteinases (or MMPs) are zinc enzymes whose overexpression has been linked with a variety of chronic illnesses, including cancer, and whose inhibition has considerable therapeutic potential. This project is aimed at the design, synthesis and evaluation of new types of oxamic acid inhibitors for different MMP subtypes.</p>
<p>THE GILI BADER MEMORIAL AWARD ICRF Israel Dina Ron, Ph.D. Technion, Israel Institute of Technology Mechanisms by which Perlecan Regulates Epidermis Homeostasis, and its Involvement in Epidermal Neoplasia 1st Year</p>	<p>This investigator is studying Perlecan, a molecule that regulates fundamental biological processes, such as cell proliferation and differentiation, and how it contributes to the development of skin cancer.</p>
<p>THE GEORGE KNUDSEN AWARD ICRF Canada, Toronto Yosef Shaul, Ph.D. Weizmann Institute of Science Mdm2 and Ubiquitin Independent p53 Proteasomal Degradation 2nd Year</p>	<p>When DNA is damaged, the p53 tumor suppressor protein accumulates in high levels within cells in order to help repair the damage. This researcher has discovered a chemical that can control the mechanism of p53 activation, and will study it further in order to learn how it might be utilized to fight cancer.</p>
<p>THE OAKDALE GOLF TOURNAMENT AWARD ICRF Canada, Toronto Gadi Spira, Ph.D. Technion, Israel Institute of Technology Heparanase in Liver Fibrosis: Mechanism Underlying Expression and Synthesis 1st Year</p>	<p>The enzyme heparanase has a role in various normal and pathological processes, and may play a major part in liver regeneration after surgery. This scientist seeks a better understanding of the mode of action of heparanase in order to facilitate our ability to stimulate liver regeneration in cancer patients.</p>
<p>THE VISIONS, THE NEXT GENERATION OF ICRF, AWARD IN HONOR OF GREGORY BELL ICRF U.S., Los Angeles Vivian Teichberg, Ph.D. Weizmann Institute of Science Blood Glutamate Scavenging in the Control of Glioma Growth and Invasiveness 2nd Year</p>	<p>Recent studies suggest that gliomas rely heavily on the use of the brain neurotransmitter glutamate for their expansive growth. This researcher will use a rat model of malignant glioma to test a procedure to eliminate excess glutamate in the brain by causing a decrease of glutamate in the blood.</p>

AWARD	DESCRIPTION
<p>THE SALLY & MICHAEL GORDON PROGRAM FOR CELL BIOLOGY AWARD ICRF U.S., New York Taila Volk, Ph.D. Weizmann Institute of Science Coordination between Cell Cycle Progression and Tissue Differentiation in Drosophila 2nd Year</p>	<p>There is a delicate balance between cell division and the development into different tissue types. When this coordinated process is disrupted, cancer often results. In order to gain a better understanding of what may inhibit or activate these mechanisms, this researcher will use the fruit fly as a model system to study the molecular machinery that regulates cell division in differentiated tissues.</p>
<p>THE DR. M. E. HODES MEMORIAL AWARD ICRF U.S., New York Yosef Yarden, Ph.D. Weizmann Institute of Science Shunting Oncogenic Receptor Tyrosine Kinases from Recycling to Degradation: A Novel Approach to Cancer Therapy 1st Year</p>	<p>This scientist's research focuses on understanding the processes that enable tumor cells to proliferate and migrate to distant organs, in the hope of inhibiting the spread of cancer by disabling the molecular switching mechanisms.</p>
<p>THE HARVEY & GLORIA KAYLIE AWARD ICRF U.S., New York Joel Yisraeli, Ph.D. Hebrew University/Hadassah Medical School Exploring the Role of VICKZ Isoforms and their RNA Targets in Metastatic Colon Cancer 1st Year</p>	<p>This investigator is studying the VICKZ family of proteins, that appear to be expressed specifically in cancer cells, but not in normal cells, as a novel target for preventing metastasis.</p>

