



# ICRF

## RESEARCH AWARDS 2003-2004

For the fiscal year, 2003-2004, the Israel Cancer Research Fund/ICRF has allocated \$1.455 million to support 47 projects:

- 3** *Professorships*
- 2** *Clinical Research Career Development Awards*
- 11** *Research Career Development Awards*
- 8** *Fellowships*
- 23** *Project Grants*

Since awarding its first cancer research grants in 1977, the ICRF has funded 1413 awards valued at a total of nearly \$28 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 2003-2004 are: studies in breast, colon, brain, prostate, kidney, skin, and mucosal site cancers, such as the lung or gastrointestinal tract; anticancer drug mechanisms and development, and multi-drug resistance; leukemia, blood cells, and tumor blood vessel growth (angiogenesis); expression, regulation, and mutation of genes; growth factors, growth control, and tumor metastasis; tumor viruses and vaccine development; antibodies, natural killer cells, and immunotherapy; enzymes, proteins, and 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 2003-2004.

## PROFESSORSHIPS

AWARD	DESCRIPTION
<p><b><i>THE SAMUEL UNGERLEIDER RESEARCH PROFESSORSHIP</i></b> ICRF U.S., New York <b>Howard Cedar, M.D., Ph.D.</b> <b>Hebrew University/Hadassah Medical School</b> <i>Regulation of Gene Expression in Animal Cells</i> 17<sup>th</sup> 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><b><i>THE HARVEY &amp; GLORIA KAYLIE RESEARCH PROFESSORSHIP IN MEMORY OF THEIR FRIENDS, HELA &amp; SIMSON STOLZ</i></b> ICRF U.S., New York <b>Aaron Ciechanover, M.D., D.Sc.</b> <b>Technion, Israel Institute of Technology</b> <i>Aberrant Ubiquitin-Mediated Regulation of Apoptosis in Prostate Cancer</i> 1<sup>st</sup> 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><b><i>THE NATHAN GALSTON RESEARCH PROFESSORSHIP</i></b> ICRF U.S., Los Angeles <b>Avram Hershko, M.D., Ph.D.</b> <b>Technion, Israel Institute of Technology</b> <i>Control of Cell Division by Ubiquitin-Mediated Protein Degradation</i> 2<sup>nd</sup> Year</p>	<p>Proteins in cells are tagged for degradation by being linked to a small protein called <i>ubiquitin</i>. 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 AWARDS

AWARD	DESCRIPTION
<p><b><i>THE CHICAGO FELLOWSHIP CIRCLE AWARD</i></b> ICRF U.S., Chicago <b>Dan Hershko, M.D.</b> <b>Rambam Medical Center</b> <i>Skp2 and Cks1 Expression as Markers of Prognosis and Tumor Behavior in Breast and Colon Cancer</i> 2<sup>nd</sup> Year</p>	<p>This researcher is examining the role of two cell-cycle regulatory proteins as markers for prognosis and tumor behavior in breast and colon cancers. Identifying the molecular mechanisms responsible for tumor aggressiveness may lead to the development of better treatment modalities for these cancers.</p>
<p><b><i>THE NATHAN GALSTON CLINICAL RESEARCH CAREER DEVELOPMENT AWARD</i></b> ICRF U.S., Los Angeles <b>Amnon Zisman, M.D.</b> <b>Assaf-Harofeh Medical Center</b> <i>A Prospective Study on Hybrid-Tumor-Dendritic Cell Vaccine in Combination with Systemic Immunotherapy: A Novel Approach for the Treatment of Patients with Metastatic Renal Carcinoma</i> 3<sup>rd</sup> Year</p>	<p>This clinician will use special laboratory procedures to create hybrid cells by fusing a patient's tumor cells with specialized white blood cells termed dendritic cells. The hybrid cells will then be injected back into the patient as a tumor vaccine. This is expected to result in the generation of immune cells capable of specifically killing tumor cells, but not normal cells.</p>

## RESEARCH CAREER DEVELOPMENT AWARDS

AWARD	DESCRIPTION
<p><b>THE LEAH AND JACK SUSSKIND AWARD</b> ICRF U.S., New York <b>Ami Aronheim, Ph.D.</b> <b>Technion, Israel Institute of Technology</b> <i>Characterization the Role of c-Jun Inhibitor in Human Cancer</i> 3<sup>rd</sup> 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><b>THE SCHULWEIS FAMILY FOUNDATION AWARD</b> ICRF U.S., New York <b>Nir Ben-Tal, D.Sc.</b> <b>Tel-Aviv University</b> <i>Surface-Mapping of Phylogenetic Information on Proteins</i> 3<sup>rd</sup> 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><b>THE BRONKA &amp; JACOB WEINTRAUB MEMORIAL AWARD</b> ICRF U.S., New York <b>Ehud Gazit, Ph.D.</b> <b>Tel-Aviv University</b> <i>The Role of Protein Folding and Stability in Type I VHL Syndrome</i> 3<sup>rd</sup> Year</p>	<p>Tumor-suppressor proteins play a central role in the development of human cancer. This researcher 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>
<p><b>THE MARION WEXMAN MEMORIAL AWARD</b> ICRF U.S., Los Angeles <b>Michael Glickman, Ph.D.</b> <b>Technion, Israel Institute of Technology</b> <i>Participation of the Proteasome in Regulating Stress Response</i> 4<sup>th</sup> Year</p>	<p>This scientist is investigating how certain cellular enzymes called proteases regulate the removal of foreign, damaged, or unnecessary proteins from cells. If proteins responsible for causing cells to grow or divide become damaged, they must be removed or cancer can result.</p>
<p><b>THE LOLA, HEINRICH, AND ERICH SCHAFRANIK MEMORIAL AWARD</b> ICRF U.S., New York <b>Anat Krauskopf, Ph.D.</b> <b>Tel-Aviv University</b> <i>Telomere Checkpoint Signaling</i> 4<sup>th</sup> Year</p>	<p>Telomeres, located at the ends of chromosomes, carry genetic information. This researcher will utilize two different yeasts as laboratory models to identify which features of telomeres – length and/or structure – are important for growth control.</p>
<p><b>THE SUZANNE AND DAVID SAPERSTEIN AWARD</b> ICRF U.S., Los Angeles <b>Sima Lev, Ph.D.</b> <b>Weizmann Institute of Science</b> <i>The Role of PYK2 in Cell Growth, Motility and Invasion</i> 4<sup>th</sup> Year</p>	<p>This scientist will study the action of a cell component, PYK2. This appears to be important in transmitting signals inside a cell that promote cell migration and invasion, and should improve our knowledge of metastasis, the spread of tumor cells throughout the body.</p>

AWARD	DESCRIPTION
<p><b>THE DR. HARRY WEINER MEMORIAL AWARD</b> ICRF U.S., Los Angeles <b>Ofer Mandelboim, Ph.D.</b> <b>Hebrew University/Hadassah Medical School</b> <i>CD16 as a Lysis Receptor for Human Natural Killer (NK) Cells</i> 4<sup>th</sup> Year</p>	<p>Our immune systems produce natural killer (NK) cells which destroy tumor and virus-infected cells. A specific protein, CD16, may promote the action of NK cells. Study of this protein could shed light on how NK cells destroy noxious cells and may lead to new ways to fight the spread of both viruses and tumors.</p>
<p><b>THE POLA AND HENRY LAND MEMORIAL AWARD</b> ICRF U.S., New York <b>Angel Porgador, Ph.D.</b> <b>Ben-Gurion University of the Negev</b> <i>Cancer Vaccines Based on Mucosal Application of Recombinant Bacterial Vaccine Vectors</i> 3<sup>rd</sup> 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><b>THE BEVERLY FRIEDMAN AWARD</b> ICRF Canada, Montreal <b>Yoram Reiter, Ph.D.</b> <b>Technion, Israel Institute of Technology</b> <i>Study of Antigen Presentation by Tumor Cells using Recombinant Antibodies</i> 5<sup>th</sup> Year</p>	<p>This investigator is trying to develop potential new anticancer agents in order to enhance the immune system's ability to attack tumor cells.</p>
<p><b>THE HARRY C. WILF MEMORIAL AWARD</b> ICRF U.S., New York <b>Ram Reshef, Ph.D.</b> <b>Technion, Israel Institute of Technology</b> <i>Regulation of Pax-2 and Wt1 in Kidney Development</i> 1<sup>st</sup> 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>
<p><b>THE CHERYL AND HAIM SABAN AWARD</b> ICRF U.S., Los Angeles <b>Adi Salzberg, D.Sc.</b> <b>Technion, Israel Institute of Technology</b> <i>Transcriptional Regulation and Function of the Homothorax Gene</i> 5<sup>th</sup> Year</p>	<p>Mutation of the Meis1 gene causes myeloid leukemia in laboratory mice. The goal of this study is to gain further insight into the role that this gene plays during normal embryonic development as well as in tumor formation.</p>

## FELLOWSHIPS

AWARD	DESCRIPTION
<p><b><i>THE NEXT GENERATION FELLOWSHIP</i></b>            ICRF U.S., New York  <b>Efrat Braun, Ph.D.</b>  <b>Hadassah Medical Organization</b>  <i>The Effect of Herpes Simplex Type-1 Latency Associated Gene upon Apoptosis</i>            2<sup>nd</sup> Year</p>	<p>Herpes viruses establish dormant infections that can reactivate to produce current disease which can become life-threatening in cancer patients. This study seeks to understand the virus reactivation process in order to prevent recurring herpetic infection in cancer patients.</p>
<p><b><i>THE HARRY &amp; SARAH WEINSTEIN MEMORIAL FELLOWSHIP</i></b>            ICRF U.S., New York  <b>Shlomit Erlich, Ph.D.</b>  <b>Tel-Aviv University</b>  <i>Cross-Talk Between Ras and ErbB Receptors: Implications for Cancer Therapy</i>            1<sup>st</sup> Year</p>	<p>Ras and ErbB are two genes associated with cancer and the regulation of cell growth. This researcher will study the interaction of these two genes with the ultimate goal of finding a new target for anticancer drugs.</p>
<p><b><i>THE HARVEY &amp; GLORIA KAYLIE FELLOWSHIP IN FOND MEMORY OF HOWARD MARTIN LANE, OUR "UNCLE" AND SOURCE OF TRUTH</i></b>            ICRF U.S., New York  <b>Sigal Gekop, Ph.D.</b>  <b>Ben-Gurion University of the Negev</b>  <i>The Role of Crk Adapter Proteins in T Cell Growth Regulation and Leukemogenesis</i>            1<sup>st</sup> Year</p>	<p>Crk proteins make it possible for signals on a cell's surface to be transmitted to the nucleus. This scientist has found that Crk proteins help Bcr-Ab1, a specific gene in the abnormal chromosome that causes chronic myelogenous leukemia, to function. Further study of this mechanism may lead to the development of drugs to counteract this process.</p>
<p><b><i>THE HARVEY &amp; GLORIA KAYLIE FELLOWSHIP IN FOND MEMORY OF ROSE ARANOWITZ SCHOENBLUM, OUR BELOVED AUNT</i></b>            ICRF U.S., New York  <b>Orlev Levy-Nissenbaum, Ph.D.</b>  <b>Tel-Aviv University</b>  <i>The Role of PYST2 in Shaping the Phenotype of Malignant Cells</i>            1<sup>st</sup> Year</p>	<p>This investigator has found that a molecule, termed PYST2, is not present in normal white blood cells, but is expressed in high amounts in acute leukemia cells and certain other malignancies, such as prostate and breast cancers. He seeks to find out whether PYST2 could serve as a novel target molecule in cancer therapy.</p>
<p><b><i>THE GERALD &amp; BARBARA WEINER FELLOWSHIP</i></b>            ICRF U.S., Chicago  <b>Tal Peleg-Shulman, Ph.D.</b>  <b>Weizmann Institute of Science</b>  <i>Designing the Next Generation of Anti-Cancer Interferons (IFNs) by way of Understanding the Differential Response of IFN Subtypes</i>            1<sup>st</sup> Year</p>	<p>Interferons are molecules involved in regulatory processes in the body. They can inhibit cancer cell growth, and are used in the treatment of various leukemias. The aim of this research project is to design novel interferons with improved anticancer activity that can potentially be used as therapeutic agents.</p>

AWARD	DESCRIPTION
<p><b>THE HARVEY &amp; GLORIA KAYLIE FELLOWSHIP IN HONOR OF OUR MOTHER, TESSIE ARANOWITZ KAYLIE, OUR SOURCE OF CARING AND INSPIRATION</b> ICRF U.S., New York <b>Galit Rozenfeld-Granot, Ph.D.</b> <b>Weizmann Institute of Science</b> <i>Identification and Characterization of Cyclin G-Interacting Proteins</i> 1<sup>st</sup> Year</p>	<p>Cyclins are molecules involved in the control of DNA production which underlies cell growth and division. This investigator will study Cyclin G in order to see what proteins it interacts with, learn how these proteins function, and discover whether such interactions are influenced by p53, a critical gene which acts to control normal cell division.</p>
<p><b>THE WOMEN OF ACHIEVEMENT FELLOWSHIP</b> ICRF U.S., New York <b>Rachel Sarig, Ph.D.</b> <b>Weizmann Institute of Science</b> <i>The Apoptotic Pathway Induced by Full-Length BID</i> 2<sup>nd</sup> Year</p>	<p>The mitochondrion is a cell's energy producing factory. This researcher seeks a better understanding of how the BID protein signals the mitochondria to cease functioning, thus causing cell death.</p>
<p><b>THE HARVEY &amp; GLORIA KAYLIE FELLOWSHIP IN HONOR OF FLORENCE AND MICHAEL EDELSTEIN, TWO VERY CARING AND BEAUTIFUL PEOPLE, WHO KNOW THE MEANING OF CHESED</b> ICRF U.S., New York <b>Anna Zetser, Ph.D.</b> <b>Technion, Israel Institute of Technology</b> <i>Involvement and Regulation of Heparanase in Prostate Cancer Progression</i> 1<sup>st</sup> Year</p>	<p>It has been found that patients with prostate cancer whose tumors have increased levels of the enzyme <i>heparanase</i> have a shorter survival time. This scientist will study how heparanase affects prostate cancer growth and response to treatment.</p>

## PROJECT GRANTS

AWARD	DESCRIPTION
<p><b>THE RACHEL'S SOCIETY AWARD IN HONOR OF REVITAL PINKAS AND DR. MONA ACKERMAN</b> ICRF U.S., New York <b>Mary Bakhanashvili, Ph.D.</b> <b>Chaim Sheba Medical Center</b> <i>Excision of Nucleoside Analogs from DNA by p53 Protein</i> 2<sup>nd</sup> Year</p>	<p>The p53 gene is the gene most commonly mutated in human cancers. This project seeks to elucidate the biochemical properties of the p53 tumor suppressor protein and the way in which mutations of the gene affect the properties of that protein.</p>
<p><b>THE HAROLD &amp; CAROLE TANENBAUM FAMILY CHARITABLE TRUST AWARD</b> ICRF Canada, Toronto <b>Avri Ben-Ze'ev, Ph.D.</b> <b>Weizmann Institute of Science</b> <i>The Role of Novel Beta-Catenin Target Genes in Cancer</i> 1<sup>st</sup> Year</p>	<p>This researcher has found that when a gene called Nr-CAM, normally found in brain cells, is expressed at high levels in other cell types, it can help drive cancer progression. Further research will be aimed at learning more about the mechanism of Nr-CAM action in the development of cancer.</p>

AWARD	DESCRIPTION
<p><b>THE SENATOR JERRY &amp; MRS. CAROLE GRAFSTEIN AWARD</b>  ICRF Canada, Toronto  <b>Itai Benhar, Ph.D.</b>  <b>Tel-Aviv University</b>  <i>Studies of HCV NS3-Mediated Cell Transformation by Neutralizing Intrabodies</i>  2<sup>nd</sup> Year</p>	<p>Intracellular processes can be specifically manipulated by the expression of intracellular antibodies (or <i>intrabodies</i>). Using the Hepatitis C Virus as a model, this study will help to determine the potential usefulness of intrabodies as clinical reagents for antiviral and anticancer gene therapy.</p>
<p><b>THE DR. ARTHUR SAWITSKY HONORARY AWARD</b>  ICRF U.S., New York  <b>Eli Canaani, Ph.D.</b>  <b>Weizmann Institute of Science</b>  <i>Transcription Factors Associated with the ALL-1 Protein and its Leukemic Forms</i>  2<sup>nd</sup> 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><b>THE WILLIAM &amp; MARIA HERSKOVIC AWARD</b>  ICRF U.S., Los Angeles  <b>Amikam Cohen, Ph.D.</b>  <b>Hebrew University/Hadassah Medical School</b>  <i>Reversal of Epigenetic Marks that Govern Silencing in Schizosaccharomyces Pombe</i>  1<sup>st</sup> Year</p>	<p>This researcher will use yeast as a model system to study the molecular mechanisms that control how proteins interact to promote gene expression and gene silencing.</p>
<p><b>THE RESEARCH FELLOWSHIP CIRCLE AWARD</b>  ICRF Canada, Toronto  <b>Rivka Dikstein, Ph.D.</b>  <b>Weizmann Institute of Science</b>  <i>Control of Anti-Apoptotic NF-kappaB Target Genes by Transcription Elongation Inhibitor(s)</i>  1<sup>st</sup> 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><b>THE WOMEN OF ACTION AWARD</b>  ICRF U.S., Los Angeles  <b>Lea Eisenbach, Ph.D.</b>  <b>Weizmann Institute of Science</b>  <i>The Role of the 1-8 Family of Interferon Inducible Genes in Carcinogenesis and Immunotherapy</i>  2<sup>nd</sup> Year</p>	<p>Antigens are cell-surface molecules that signal the immune system that foreign invaders are present. This researcher has discovered several new colon cancer antigens, and will test them for possible anticancer vaccine development.</p>
<p><b>THE CHERYL AND HAIM SABAN AWARD</b>  ICRF U.S., Los Angeles  <b>Dale Frank, Ph.D.</b>  <b>Technion, Israel Institute of Technology</b>  <i>XMeis3 Protein Regulates Differentiation and Morphogenesis in the Early Vertebrate CNS</i>  2<sup>nd</sup> Year</p>	<p>This project seeks to gain a better understanding of the molecular events underlying brain cell development, and should also yield more information on the mechanisms that transform normal cells into cancer cells.</p>

AWARD	DESCRIPTION
<p><b>THE WILLIAM BRODY MEMORIAL AWARD</b> ICRF Canada, Toronto <b>Arnona Gazit, Ph.D.</b> <b>Tel-Aviv University</b> <i>The Human Frizzled Receptor (Hfz6) - A Downregulator of the Wnt Canonical Pathway</i> 1<sup>st</sup> Year</p>	<p>Wnt proteins play a key role in development, cell growth, and differentiation. Their misregulation is involved in a variety of human cancers. This researcher seeks a better understanding of the mechanisms that regulate Wnt signaling. This may potentially lead to the development of future tools for therapeutic intervention.</p>
<p><b>THE ROSE &amp; SOL BRAFMAN MEMORIAL AWARD</b> ICRF U.S., New York <b>Dan Gibson, Ph.D.</b> <b>Hebrew University of Jerusalem</b> <i>Preparation and Pharmacological Evaluation of Novel Non-Classical Water Soluble Platinum Drugs</i> 2<sup>nd</sup> 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><b>THE RACHEL'S SOCIETY AWARD IN HONOR OF MARALYN &amp; ISIDORE FRIEDMAN, RITA &amp; FRED RICHMAN, AND JUDITH &amp; ISAAC SHERMAN</b> ICRF U.S., New York <b>Amiram Goldblum, Ph.D.</b> <b>Hebrew University of Jerusalem</b> <i>Designing Selective Antagonists for Estrogen Receptors</i> 1<sup>st</sup> Year</p>	<p>Estrogens have some highly beneficial effects on the body, but are also capable of stimulating malignant growth, such as breast cancer. The aim of this project is to develop novel drugs for treating breast cancer by blocking estrogen.</p>
<p><b>THE NEXT GENERATION AWARD</b> ICRF Canada, Montreal <b>Ygal Haupt, Ph.D.</b> <b>Hebrew University/Hadassah Medical School</b> <i>Regulation of Mdm2 by PML</i> 1<sup>st</sup> Year</p>	<p>The activation of the p53 gene in tumor cells results in growth inhibition. This project will explore the regulation of the p53 gene by two cellular proteins, PML and Mdm2, which are mutated in certain cancers.</p>
<p><b>THE DR. DANIEL G. MILLER MEMORIAL AWARD</b> ICRF U.S., New York <b>Yoav Henis, Ph.D.</b> <b>Tel-Aviv University</b> <i>Interactions and Endocytosis of Growth-Inhibitory Receptors</i> 2<sup>nd</sup> 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><b>THE DR. M.E. HODES MEMORIAL AWARD</b> ICRF U.S., New York <b>Chaya Kalcheim, Ph.D.</b> <b>Hebrew University/Hadassah Medical School</b> <i>Mechanisms of Epithelio-Mesenchymal Conversion of Neural Crest Progenitors</i> 1<sup>st</sup> Year</p>	<p>This investigator is exploring the mechanism underlying creation of different cell types during development in order to understand which factors contribute to control of the number of cells present in the body.</p>

AWARD	DESCRIPTION
<p><b>THE PATTY FRANKLIN MEMORIAL AWARD</b> ICRF U.S., Los Angeles <b>Gabriel Kaufmann, Ph.D.</b> <b>Tel-Aviv University</b> <i>DNA Ligase Role in an Early Step in Human DNA Chain Synthesis</i> 2<sup>nd</sup> Year</p>	<p>This investigator specializes in the study of human chromosome replication, a process which, if disrupted, leads to mutation, cell death, and cancer. A better understanding of this process could contribute to improved cancer diagnosis and therapy.</p>
<p><b>THE LADIES GOLF AWARD</b> ICRF Canada, Montreal <b>Agnes Klochender-Yeivin, Ph.D.</b> <b>Hebrew University/Hadassah Medical School</b> <i>Interplay Between SNF5 and p53 in Tumor Suppression</i> 2<sup>nd</sup> Year</p>	<p>This researcher will conduct experiments in mice and cells in order to better understand how two tumor suppressor genes, SNF5 and p53, collaborate to protect against breast and other cancers.</p>
<p><b>THE DR. MAURICE HILLEMANN HONORARY AWARD</b> ICRF U.S., New York <b>Alon Margalit, Ph.D.</b> <b>MIGAL, Galilee Technology Center</b> <i>Novel DNA Cancer Vaccines for Induction of Tumor-Specific CTLs</i> 1<sup>st</sup> Year</p>	<p>Using a mouse model for skin cancer (melanoma), this scientist will employ genetic engineering techniques in order to develop new vaccination strategies to induce a specific immune system response directed against cancerous cells.</p>
<p><b>THE RUTH AND SAMUEL J. ROSENWASSER MEMORIAL AWARD</b> ICRF U.S., New York <b>Doron Melamed, Ph.D.</b> <b>Technion, Israel Institute of Technology</b> <i>A Role of B Cell Receptor Competence in Regulating B Cell Maturation and Positive Selection</i> 2<sup>nd</sup> 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><b>THE NEW LEADERSHIP AWARD</b> ICRF Canada, Montreal <b>Ze'ev Paroush, Ph.D.</b> <b>Hebrew University/Hadassah Medical School</b> <i>Combinatorial Signalling in Drosophila Terminal Fate Specification</i> 1<sup>st</sup> Year</p>	<p>The correct genes must be expressed in the correct tissue at the correct time or cancer will result. This study endeavors to understand the process underlying gene regulation.</p>
<p><b>THE DRS. HILLEL LAKS AND HARVEY R. HERSCHMAN HONORARY AWARD</b> ICRF U.S., Los Angeles <b>Eli Pikarsky, M.D., Ph.D.</b> <b>Hadassah Medical Organization</b> <i>The Role of Oct3/4 in Germ Cell Tumors</i> 2<sup>nd</sup> Year</p>	<p>This researcher seeks a better understanding of the mechanisms that lead to the development of testicular cancer. He will examine the role of oct3/4, a protein which normally regulates the maturation of sperm cells, that may be a key player in the malignant transformation process.</p>

AWARD	DESCRIPTION
<p><b>THE MILDRED (“MICKEY”) BOGEN MEMORIAL AWARD</b>            ICRF U.S., New York  <b>Israel Vlodavsky, Ph.D.</b>  <b>Hadassah Medical Organization</b>  <i>Involvement of Heparanase in Colon Cancer Progression</i>            2<sup>nd</sup> Year</p>	<p>Measuring the level of the enzyme <i>heparanase</i> in colon cancer cells may predict the aggressiveness of the tumor. This scientist will study how the enzyme affects colon cancer metastasis, and will try to develop heparanase-specific inhibitors that may halt tumor progression.</p>
<p><b>THE VISIONS, THE NEXT GENERATION OF ICRF, INAUGURAL AWARD</b>            ICRF U.S., Los Angeles  <b>Efrat Wertheimer, M.D., Ph.D.</b>  <b>Tel-Aviv University</b>  <i>The Role of Insulin Signaling in Experimental Skin Cancer</i>            2<sup>nd</sup> Year</p>	<p>Insulin, a hormone essential for metabolism of carbohydrates, also plays a key role in the regulation of normal and cancerous cell growth. This researcher seeks to better understand the hormonal control of malignant cell growth by studying the role of insulin signaling in the development of skin cancers.</p>
<p><b>THE DR. DAVID MILLER AWARD</b>            ICRF Canada, Montreal  <b>Joel Yisraeli, Ph.D.</b>  <b>Hebrew University/Hadassah Medical School</b>  <i>The Role of VICKZ Proteins in Cell Migration and Metastasis</i>            2<sup>nd</sup> Year</p>	<p>Working first with frog embryos and then with human cancer cell lines, this researcher has identified a protein family that appears to play an important role in cell metastasis. Further study of this protein family should lead to a better understanding of its function in both normal cell and tumor development.</p>

