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NFCR MISSION STATEMENT

The National Foundation for Cancer Research (NFCR) was founded in 1973 to support cancer research and public education relating to prevention, early diagnosis, better treatments and ultimately, a cure for cancer. NFCR promotes and facilitates collaboration among scientists to accelerate the pace of discovery from bench to bedside. NFCR is about Research for a Cure—cures for *all* types of cancer.

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FROM THE PRESIDENT

NFCR funding translates into high impact research.

And there is no more exciting time to be part of cancer medicine than now. The benefits of decades of NFCR-funded research have truly begun to be realized. Since 1973, NFCR has been at the cutting edge of cancer research, a catalyst for new discoveries by creating a powerful synergy among scientists in the laboratory and in the clinic to bring new, more effective anti-cancer treatments to patients as quickly as possible.

By integrating molecular-based technologies, systematic tumor specimen procurement, and biomedical informatics, the National Foundation for Cancer Research is leading the way forward in deciphering cancer's genetic code and translating laboratory discoveries into remarkable new therapies that target the unique genomic and cellular characteristics of each patient's cancer.

There is so much we have accomplished, but we also know there is much more we must do. NFCR is the perfect discovery engine: NFCR-funded discoveries are the blueprint for the next generation of cancer treatments.

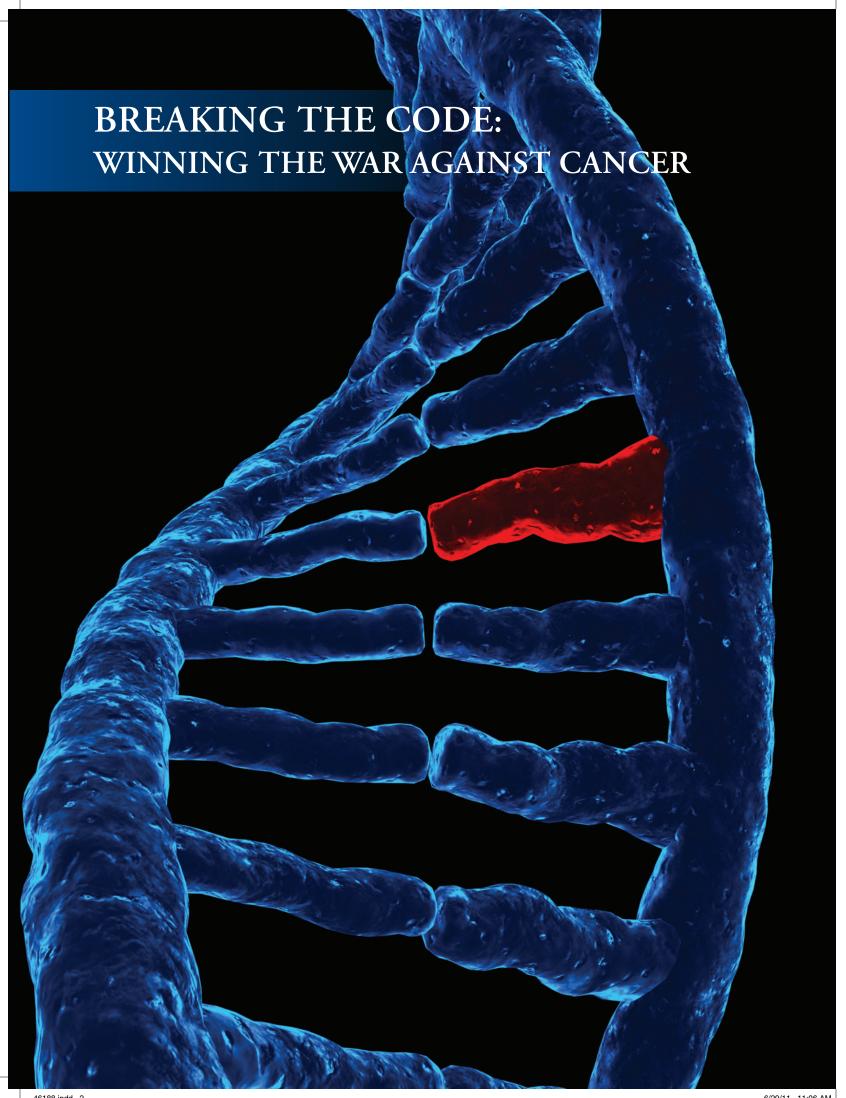
NFCR is *Research* for a Cure – Cures for *all* types of cancer.

This is what you are making possible by your generous support. Thank you.

Sincerely,

Franklin C. Salisbury, Jr. President

Franklistelighting



The "black box" that was the cancer cell has been opened and, with the support of millions of Americans, NFCR researchers have pioneered the redefinition of cancer as a genetic disease, making possible new approaches to treating cancer and transforming medicine so that real hope for a cure is now within sight.

NFCR scientists are at work on new anti-cancer drugs that target the very genes and signaling pathways that make a cell cancerous. These new targeted cancer therapies are proving more effective, longer lasting, and far less toxic than radiation and chemotherapy – treatments with side effects that inspire dread so deep that they are almost as feared as the cancer itself.

Today, more individuals diagnosed with cancer are surviving longer than ever before. Even those who ultimately succumb to cancer live longer and experience a much better quality of life than was possible just a few years ago. Every day at NFCR, our researchers report progress in the development of promising new ways to prevent, detect and treat cancer. But until there is a cure, we will not be satisfied – too many lives are at stake.

The National Foundation for Cancer Research is an innovative cancer charity, supporting cancer research in a truly collaborative way, reaching global dimensions. Since 1973, NFCR has spent over \$288 million to fund "high risk/high reward" research at universities and research hospitals worldwide.

The research funding we provide is having a catalytic effect and accelerating the pace of cancer research. Today in laboratories across the United States, England, Germany, and China, NFCR scientists are moving cancer research toward that ultimate goal – finding cures for *all* types of cancer.

TARGETING TOP KILLERS TO SAVE LIVES

In 2010, an estimated 1,529,560 new cases of cancer were diagnosed; as many as 570,000 people died of cancer in the United States alone. Sadly, that's nearly 1,500 people a day. One person every minute. Nearly half of all cancer deaths in the United States are caused by four types of cancer: lung, prostate, breast, and colorectal. NFCR supports research on all types of cancer, but we have developed a comprehensive approach to support promising research that targets these four leading killers. NFCR funding helps our scientists push forward in developing new early diagnostic tools, discovering new cancer targets, and bringing more effective anti-cancer treatments to patients.

LUNG CANCER RESEARCH

Causing nearly one-third of all cancer deaths in the United States, lung cancer remains the number one killer among all types of cancer. NFCR provides funding to support seven leading scientists from around the world working to find a cure for lung cancer. NFCR's research is focused on several critical areas, including: chemoprevention, early diagnosis, personalized medicine, and the development of a simple blood test for real-time monitoring of cancer. Research breakthroughs in these areas will bring significant benefits to lung cancer patients, improving their survival rates and quality of life.

PROSTATE CANCER RESEARCH

More than 217,730 men were diagnosed with prostate cancer in 2010 in the United States, and about 32,000 died from it. The 5-year survival rate for prostate cancer patients has dramatically increased to nearly 100%, largely due to recent advances in cancer research. However, once the cancer has spread, it can still be fatal because there is no curative treatment available at this time. Four NFCR

scientists are working on new strategies to tackle metastatic prostate cancer on multiple fronts including: the molecular mechanisms that drive the spread of cancer, innovative technology for detection, and novel gene therapies for treatment-resistant metastatic prostate cancer. Their critical and innovative research will lead to better strategies in the earlier detection and treatment of prostate cancer.

BREAST CANCER RESEARCH

Breast cancer is the most frequently diagnosed cancer and the second leading cause of cancer death in women. NFCR supports breast cancer research in the laboratories of 10 leading scientists. These scientists are on the frontline of multiple aspects of breast cancer research, including: the development of cutting-edge molecular imaging technology that will allow earlier diagnosis, seeking new strategies to overcome tumor drug resistance, developing nanocomplex drug delivery technology, identifying genes that control the early migration of cancer cells into healthy tissue, and establishing more effective strategies to stop metastasis - which is responsible for more than 90% of breast cancer deaths.

COLORECTAL CANCER RESEARCH

Colorectal cancer is the third leading cancer killer of both men and women in America. With NFCR support, seven outstanding scientists are launching attacks on this deadly disease. Their research is identifying new biomarkers for early diagnosis, developing novel targeted cancer therapies, and demonstrating that Traditional Chinese Medicine can alleviate the gastrointestinal side effects of chemotherapy.

OTHER TYPES OF CANCER

NFCR scientists are also working around the clock to find more effective treatments for many other types of cancer. Pioneering research is being conducted to fight pancreatic, ovarian, brain, liver, esophageal, gastric, cervical, kidney, head and neck cancer, as well as leukemia, lymphoma, multiple myeloma, melanoma, soft tissue sarcoma, and many others. NFCR scientists are moving cancer research toward our ultimate goal – finding cures for cancer... all types of cancer.



RESEARCH: THE ONLY ANSWER TO PROLONGING CANCER SURVIVAL AND FINDING A CURE

NFCR Researcher Kathryn
Horwitz, Ph.D., and her team
of scientists at the University
of Colorado Anschutz Medical
Campus, are at the forefront of
research designed to untangle a
major question in breast cancer:
Why is it that despite intensive
therapy, breast cancers often recur?

NO TWO BREAST CANCERS ARE ALIKE: LUMINAL BREAST CANCER HETEROGENEITY

Scientists have known since the late 1960s that most breast cancers are "hormone dependent" and require estrogens for growth. While estrogens are most commonly produced in the ovaries of premenopausal women, these hormones are also locally produced in peripheral tissues including fat, skin, and breasts of pre-and postmenopausal women – and importantly, also in men. Breast cancers themselves often contain the metabolic machinery to produce estrogens, thus

fueling their own growth. It is estimated that at least 75% of all breast cancers fall into the hormone dependent category.

In recent years, with the advent of technologies that allow analysis of all the genes expressed in a tumor, hormone-dependent breast cancers have been reclassified as belonging to the "luminal" subtype. Luminal tumors are characterized by presence of receptors for estrogens (ER) and often also for the other women's hormone, progesterone (PR).¹ The remaining approximately 25% of breast cancers fall into two additional categories: HER2-overexpressing and "basal-like" subtypes.

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¹ Dr. Horwitz was the first to demonstrate that some, but importantly not all ER-positive breast cancers, contain PR. This led her to postulate that ER-positive, PR-positive tumors would respond to Tamoxifen; but that ER-positive, PR-negative tumors would be Tamoxifen resistant. Her landmark paper was published in the journal *Science* in 1975. Dr. Horwitz's discovery has stood the test of time. Starting in the 1980s, millions of tumors have been assayed for both ER and PR to identify the subset of breast cancers likely to respond to endocrine therapies. Horwitz, K.B., McGuire, W.L., Pearson, O.H. & Segaloff, A. Predicting response to endocrine therapy in human breast cancer: a hypothesis. *Science* 189, 726–727 (1975).

Basal-like breast cancers are essentially all the ones that lack ER, PR and HER2 and are therefore "triple negative."

Why are these classifications important? Because they influence how the cancers are treated. Luminal cancers are targeted with hormone therapies designed to block estrogen action – the anti-estrogens, or to block estrogen production – the aromatase inhibitors. HER2-positive cancers are treated with anti-HER2 targeted small molecules or antibodies like Herceptin. Basal-like cancers, lacking obvious therapeutic targets, are treated with non-specific cytotoxic chemotherapeutic agents.

These subtype categories are based on methods that grind up whole tumors. However, cell-by-cell analyses of tumors paint a different picture. They show that a tumor classified as luminal and subject to hormone therapies may contain as few as 1% of cells that are ER-positive. The problem is evident: what are the other 99% ER-negative cells in luminal disease? Clearly hormone therapies will not target them. Dr. Horwitz's recent work addresses this heterogeneity.2 Her NFCR research has shown that luminal cancers contain multiple types of malignant cells, some luminal, some basal-like, and others as yet unclassified but belonging to neither category. "Luminal cancers are not made up of a single cancer cell-type," says Dr. Horwitz. "They are a mixture of different cancer cells, often at least 3 to 4 different cell subpopulations, each of which has to be targeted by different therapeutic modalities. Current 'one size fits all' approaches to the treatment of luminal breast cancer simply will not work in the long run."

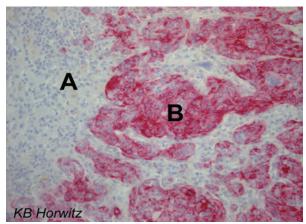
Treatment failures usually result in tumor recurrence. "This is hardly surprising," says Dr. Horwitz. "If therapy targets only one subpopulation of cells in a tumor and leaves the rest of the cells in the tumor untreated, what will happen? What one can expect to happen is that the untreated tumor-cell subpopulation will expand and take over the tumor." This is essentially an evolutionary survival of the fittest view of cancer progression.

"And another thing," she says, "no two breast cancers are alike." Breast cancers are as different from one another as the people afflicted by them. Dr. Horwitz believes that this presents both a challenge and an opportunity. The challenge is two-fold. First is to develop rapid and accurate methods to "fingerprint" any individual woman's tumor so that the unique cell types within it can be identified and quantified. Second is to define existing therapies, and importantly, to develop new therapies that precisely target each of these different cell subtypes.

LOOKING TO THE FUTURE: A GOOD LIFE EVEN WITH BREAST CANCER

Herein lies the opportunity. Dr. Horwitz envisions a future in which every woman's tumor will be initially screened in the test tube for its responsiveness to a variety of hormones and drugs, and only then will the appropriate therapies be given to the patient. "Ten years from now, we will be able to analyze a cancer, show each major subpopulation of cells of which it is comprised, and target each of these cell groups individually with different drugs. Future treatments will involve a cocktail of therapeutic agents, given either sequentially or concurrently, to blast the tumor cells into oblivion."

Importantly, therapies given transiently, followed by periods of rest from therapy, may alternately keep various tumor cell



Example of a breast cancer with two entirely different tumor-cell subpopulations, here labeled "A" and "B". Treatments that target "A" may not affect "B".



subtypes permanently under control. "My hope," says Dr. Horwitz, "is that we can convert breast cancer from a lethal disease, into a chronic, manageable and survivable disease; one that allows women with a diagnosis of breast cancer many decades of healthy and productive living surrounded by the people they love."

NFCR SUPPORTS THE BEST

Dr. Horwitz is a "Distinguished Professor" at the University of Colorado, an accolade reserved for only a handful of the University's faculty. She was honored with this title because of her lifetime of work on the role of women's hormones in breast cancer. Her research, funded continuously by NFCR for 26 years, has garnered her national and international recognition. This year she received the Fred Conrad Koch

Award, the highest award of the Endocrine Society. Also this year, she received the Rosalind E. Franklin Award of the National Cancer Institute, National Institutes of Health, which recognizes a woman scientist's achievements in cancer research. Dr. Horwitz is a prime example of how NFCR funding is paving the way for new and more effective cancer treatments that save more lives. NFCR supports Research for a Cure.

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² Horwitz, K.B., Dye, W.W., Harrell, J.C., Kabos, P. & Sartorius, C.A. Rare steroid receptor-negative basal-like tumorigenic cells in luminal subtype human breast cancer xenografts. *Proc. Natl. Acad. Sci. USA* **105**, 5774–5779 (2008).



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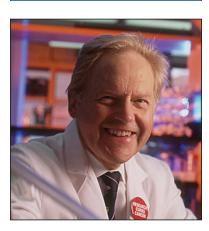


Daniel Von Hoff, M.D. - Cancer Patient Assistance Fund, TGen, *Phoenix.* There is still hope for cancer patients whose doctors have told them their solid tumors are not responding to standard therapies. NFCR has launched an innovative targeted cancer therapy program which matches each patient's tumor with specific phase I anti-cancer drugs designed to target genetic biomarkers expressed on that patient's cancer. This new approach to treating cancer is the focus of clinical research being directed by Dr. Daniel Von Hoff at the Translational Genomics Research Institute (TGen) in Scottsdale, Arizona as part of NFCR's Cancer Patient Assistance Fund.

The key to treating cancer is to look deep into the tumor genome in search of its Achilles' heel, mutations that define the tumor's vulnerability and provide a therapeutic target. Rather than waiting for the next agent to come along, the NFCRsupported clinical researchers at TGen select an anti-cancer drug for each patient. The chosen drug targets the vulnerability revealed by sequencing the patient's entire genome. This new approach makes the traditional phase I trials more therapeutic and quickly brings direct treatment benefits and hope to the patients who very likely have no other treatment options available to them.

Although not every patient is appropriate for Dr. Von Hoff's breakthrough Single Genome Sequencing approach, and while there is no certainty that the vulnerability discovered in a tumor genome is the one that drives the tumor growth, this is a promising starting point towards a new therapeutic paradigm.

In laboratories across the Unites States, Europe, and China, NFCR scientists and their research teams are working at the cutting edge of cancer research today. Highlighted here is a sampling of important research breakthroughs. To learn more about the latest research by NFCR scientists, visit www. NFCR.org.



Brian Leyland-Jones, M.D., Ph.D. -Consortium for Clinical Diagnostics (CCDx), Atlanta, is revolutionizing cancer therapy and diagnostics through the use of biomarkers. With the growing and urgent need for biomarker profiling and validation in cancer research today, the Consortium for Clinical Diagnostics (CCDx) is a partnership of scientists at research institutions and biopharmaceutical companies dedicated to facilitating genomic research and developing new diagnostic tools. CCDx provides a centralized infrastructure and expertise in genomics and molecular imaging as well as translational medicine. The Consortium provides key capabilities in all aspects of predictive medicine, including identification and validation of disease susceptibility genes and genetic signatures, pharmacogenomics, and the development of medical response tests as well as new and improved diagnostic tests - especially as they relate to cancer.



Xi-Shan Hao, M.D.—TMUCIH-NFCR Joint Tissue Banking Facility, Tianjin Medical University, Tianjin, China.
Well-characterized tumor specimens, carefully gathered and preserved in a well-managed biorepository, constitute one of the most valuable resources for cancer researchers. Genetic data from tumor specimens, coupled with the development of technologies to assay the molecules and pathways in tumor cells, allow researchers to gain deeper understanding of the roles cancer-related genes, proteins and pathways are playing in different types of cancer, and are revolutionizing modern cancer therapy.

Scientists at the TMUCIH-NFCR Joint Tissue Bank collect and maintain biospecimens (tumor tissues and matching blood samples) from cancer patients fighting all types of cancer; this rapidly growing biorepository includes more than 24,000 fresh frozen tissue samples and over 14,000 blood samples.

The TMUCIH-NFCR Joint Tissue Bank is part of an NFCR Tissue Bank Consortium in Asia (TBCA), a source of biospecimens essential to cutting-edge cancer research. NFCR provides consortium members access to a web-based biospecimen locator, enabling cancer researchers to determine the availability of suitable biospecimens. By providing cancer researchers access to many different types of high quality tumor specimens, the TBCA plays an increasingly important role in cancer research.

The TBCA operates in total compliance with the highest international standards, and is governed by a TBCA Steering Committee made up of leading scientists from the NCI, Chinese Ministry of Health, as well as universities, research hospitals, and biopharmaceutical companies in the United States and China.

NEW BLOOD TEST FOR CANCER



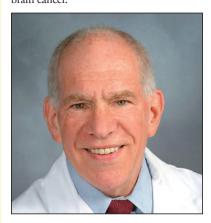
Daniel A. Haber, M.D., Ph.D. -Massachusetts General Hospital, Boston, and his team of scientists have developed a revolutionary way to detect and capture circulating tumor cells (CTCs) in the blood. This technology may provide doctors with an unprecedented means of rapidly detecting invasive cancers by using an easily administered blood test. Knowing about the presence and the genetic features of cancer cells in a patient's blood may enable the physician to identify and prescribe targeted anti-cancer treatments early on, before the disease can spread to and then reside in another organ. Such a test could also enable doctors to monitor the effectiveness of their patient's treatment and make any necessary treatment changes, increasing the positive effect of all cancer therapies.

TARGETING THE AGGRESSIVE BRAIN CANCER, GLIOBLASTOMA



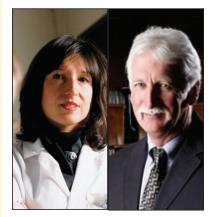
Webster K. Cavenee, Ph.D. – Ludwig Institute for Cancer Research, La Jolla, previously identified EGFRvIII, a variant version of EGFR (Epidermal Growth

Factor Receptor) that is commonly present in the highly aggressive brain cancer, glioblastoma. While anti-cancer therapies targeting this growth factor are initially effective, many times the cancer develops resistance to targeted therapies, allowing the tumors to grow again. Dr. Cavenee recently discovered a unique gene in glioma cells, KLHDC8A or SΔE1, which may be the molecule that enables the gliomas to resist EGFR-targeting drugs and continue to grow through an alternative molecular pathway. Approaches to combining current targeted cancer therapies against EGFR with drugs that would block this escape pathway may greatly increase the effectiveness of treating glioblastoma, and give patients a better chance against this lethal brain cancer.

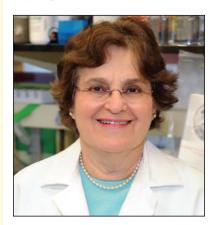


Ronald G. Crystal, M.D. – Weill Medical College of Cornell University, New York, is conducting research on using recombinant proteins and antibodies to develop gene transfer treatments for glioblastoma as well as other central nervous system disorders. Dr. Crystal's lab has developed strategies and the technology to successfully deliver genes to the central nervous system and this research will expand the technology and its application to cancer.

ANTI-CANCER DRUG DESIGN AND DISCOVERY



Alanna Schepartz, Ph.D., William Jorgensen, Ph.D. - NFCR Center for Anti-Cancer Drug Design and Discovery, Yale University, New Haven, have developed anti-cancer beta-peptide inhibitors to address one of the biggest challenges in drug discovery. Beta-peptide inhibitors represent a new generation of anti-cancer drugs that are highly effective and specific in targeting almost any cancer-related protein-protein interaction. To date, these researchers have identified beta-peptides against protein interactions involving hDM2, and are continuing to improve their therapeutic effects by making these peptides enter tumor cells more easily. This new platform technology may positively impact the treatment of all major types of cancer.



Susan Band Horwitz, Ph.D. – Albert Einstein College of Medicine, Bronx, is deciphering how tumors develop resistance to Taxol, and is developing new strategies to overcome the drug resistance problem in tumors. Her research has shown Taxol and the natural product, discodermolide, have complementary effects in inhibiting cell division, explaining why combining

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Taxol with discodermolide can enhance the therapeutic activity of Taxol and may even reduce the emergence of drug resistance. The availability of such drug combinations for the treatment of lung, breast, and ovarian cancers could make a significant difference for patients whose tumors are resistant to Taxol.



Paul Schimmel, Ph.D. – The Scripps Research Institute, La Jolla, and colleagues are seeking to understand why human aminoacyl tRNA synthetases, which are among the essential enzymes involved in the protein synthesis machinery found in all organisms, have distinct additional vital activities that are involved in pathways relevant to treating cancer and other diseases. In the past year, the scientists published a landmark paper on their discovery of how one tRNA synthetase inhibits blood vessel formation, potentially fueling development of new anti-angiogenesis treatments which have been so effective in keeping cancer from growing and spreading.

Lawrence Marnett, Ph.D. – NFCR
Center for Proteomics and Drug
Actions, Vanderbilt University,
Nashville, is developing advanced
proteomics techniques to understand
drug efficacy and toxicity. The Center is
working to determine if novel anti-cancer
drugs work and how the drugs produce
therapeutic effects or cause undesired side
effects. Research at the Center will provide
essential information for directing the
appropriate drugs to patients who will
benefit most from them.

Dr. Marnett designed a new way to image the COX-2 enzyme in growing tumors. This technique will help scientists better understand the role of the enzyme in inflammation and cancer, and give

physicians a new way to identify and treat cells at risk for cancer in their patients.



Graham Richards, Ph.D. – NFCR Center for Computational Drug Discovery, University of Oxford, UK, is developing cutting-edge computer programs for ultrafast screening of new anti-cancer drug candidates. This NFCR Center involves collaborators from the United States, United Kingdom, Spain, Portugal, Italy, South America, and China. A novel 3-D Molecule Search Engine software developed by Center researchers, known as **Ultrafast Shape Recognition** (USR), can search for virtual compounds as anti-cancer drug candidates at a speed up to 14,000 times faster than similar technologies. This novel method enables scientists to find drug-like molecules within a huge database in hours rather than years. The Center's DrugFinder program has successfully identified anti-cancer lead compounds that have advanced to the optimization phase.



Alan C. Sartorelli, Ph.D. – Yale
University School of Medicine,
New Haven, is a world-renowned
pharmacologist who designed
Cloretazine™ (now known as Onrigin™), a
drug demonstrating promising treatment

benefits for patients with Acute Myeloid Leukemia (AML), other types of leukemia, brain tumors, lung and other types of cancer. Onrigin is a member of a class of chemotherapy agents called guanine O⁶-targeting drugs which modify cellular DNA. To make Onrigin and similar agents target only cancer cells, Dr. Sartorelli has designed an inactive drug that converts to an active one only in low-oxygen or hypoxic cancer cells. With his innovative design, Dr. Sartorelli envisions these new targeted drugs will be effective in tumors that have been resistant to therapeutic intervention, providing hope to AML and other cancer patients that their cancer can be effectively treated.

PERSONALIZED MEDICINE



Waun Ki Hong, M.D. – MD Anderson Cancer Center, Houston, initiated the BATTLE program, or Biomarker-Based Approaches of Targeted Therapy for Lung Cancer Elimination, to develop individualized targeted therapies for patients with advanced non-small cell lung cancer (NSCLC) that is resistant to chemotherapy. Recently, Dr. Hong's team presented very encouraging results from four clinical trials that tested personalized medicine protocols in lung cancer patients. In these trials, patients were assigned to the treatment drug to which they were most likely to respond based on their personal biomarker profile identified through tumor biopsies. BATTLE is an important step toward personalized medicine and marks a paradigm shift for clinical trials by demonstrating the feasibility of a biopsy-based biomarker trial. These initiatives will move personalized medicine forward and improve treatment efficacy for individual patients.



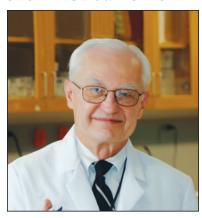
Laurence Hurley, Ph.D., Daniel Von Hoff, M.D. - NFCR Center for Targeted Cancer Therapies, TGen, Phoenix, are developing new targeted cancer therapies and improving the treatment efficacy of existing therapies. In the past year, these researchers continued their work on a new viable drug target for pancreatic cancer. At the same time, they have begun developing molecules that inhibit the cancerous function of the target. In another research arena, this team has identified candidate genes and their corresponding inhibitors that can be used to improve patient response to the commonly used targeted therapy, Tarceva®. Clinical trials on these inhibitors are now being planned and, if successful, could meaningfully improve clinical outcomes for pancreatic cancer patients.



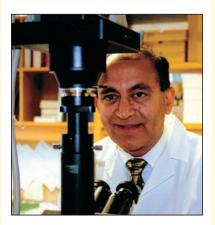
Esther H. Chang, Ph.D. – Georgetown University, Washington, DC, has developed a nanoscale, liposome-based tumor targeting drug delivery system that can carry anti-cancer agents directly to both primary and metastatic tumor cells, significantly enhancing a tumor's sensitivity to chemo- and radiation therapy. Dr. Chang and her team successfully delivered tumor suppressor

gene p53 and anti-HER2 siRNA to tumors, including breast and pancreatic tumors. In 2010, the p53 nanocomplex is proving to be a safe, non-toxic potential targeted cancer therapy in treating patients with several types of solid tumors in an early phase clinical trial.

ANTI-ANGIOGENESIS – SHUTTING DOWN CANCER



Harold F. Dvorak, M.D. - Beth Israel Deaconess Medical Center, Boston, won the inaugural Szent-Györgyi Prize for his discovery of the Vascular Permeability Factor/Vascular Endothelial Cell Growth Factor (VPF/VEGF). The growth factor VEGF plays a central role in the formation of blood vessels in and around malignant tumors, the process known as angiogenesis. Dr. Dvorak's work has led to the development of anti-angiogenic therapies, a new generation of anticancer drugs that target tumor blood vessels. Dr. Dvorak's recent discoveries demonstrate that the therapeutic effects of individual anti-angiogenic drugs vary among different types of tumor blood vessels. His team has also identified several potential new therapeutic targets for inhibiting angiogenesis. Dr. Dvorak's work has significant clinical implications for the research community as it clarifies the relative strengths and weaknesses of anti-angiogenic drugs for treating cancer, guiding the development of this critical component of effective targeted therapy.



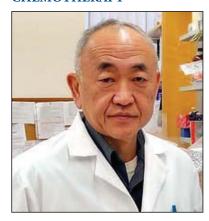
Rakesh K. Jain, Ph.D. - Massachusetts General Hospital, Boston, is discovering new ways of preventing resistance to anti-angiogenic therapy in glioblastoma patients. Although some patients initially respond positively to this therapy, in all cases the tumors eventually regrow. Identification of biomarkers that indicate tumor progression during therapy is urgently needed to guide the development of new treatments that will stop cancer growth. Recently Dr. Jain's team identified, for the first time, two candidate biomarkers that are highly expressed in patients' glioblastoma cells after anti-angiogenic therapy. These biomarkers may drive the tumor to progress, causing the resistance to the therapy. Dr. Jain is currently validating the candidate biomarkers as targets of new therapies, as well as identifying new potential candidates. With continued success, new effective treatments can be developed, giving patients renewed hope of winning the battle against this aggressive brain cancer.

Stanley Cohen, M.D. – Stanford University School of Medicine, Stanford, is working to identify genes that regulate the proliferation and metastasis of cancer cells. In the past year, Dr. Cohen has identified genes in breast cancer that, when deactivated, result in the increased expression of VEGF. These newly identified genes could be used as novel targets of breast cancer and offer possibilities for treating breast cancer by inhibiting the vascularization.

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CHINESE HERBAL MEDICINES AS ADJUNCT TO CHEMOTHERAPY



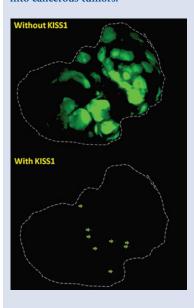
Yung-Chi Cheng, Ph.D. – Yale University School of Medicine, New *Haven.* The therapeutic effects of traditional Chinese medicines have been documented for centuries but have been regarded by modern medicine as "alternative therapy" because there was little scientific proof that they could work. For the last 10 years, with NFCR support, Dr. Cheng has explored the therapeutic properties of PHY906, a Chinese herbal medicine formula of four herbs described 1,700 years ago. In a 2010 landmark paper, he showed through phase I and phase II clinical trials that treatment using PHY906 in combination with chemotherapy alleviates the unpleasant gastrointestinal side effects of chemotherapy given to colorectal cancer patients. With continued success in phase III trials, PHY906 could become one of the first FDA-approved oral herbal medicines for anti-cancer treatment. This breakthrough represents a paradigm shift in the way the cancer research community thinks about traditional Chinese medicine. It opens the door for new approaches to treating cancer using these ancient medicines and potentially gives physicians new and more effective options for treating many cancer patients.

METASTASIS SUPPRESSOR GENES

Danny Welch, Ph.D. - NFCR Center for Metastasis Research, University of Alabama at Birmingham, is addressing metastasis, the most lethal aspect of cancer, which is related to more than 90% of all cancer deaths. Dr. Welch's research focuses on identifying the fundamental molecular changes in cancer cells that enable them to metastasize, and on developing strategies to stop this lethal process. To date, Center researchers and collaborators have discovered six metastasis suppressor genes. In the past year, these scientists continued to investigate how these genes function in suppressing metastasis, and the data generated will be crucial for translating their laboratory discoveries into new antimetastasis therapies for cancer, including: breast, prostate, colon, ovarian, and pancreatic cancers and melanoma.

KISSI GENE TURNED ON

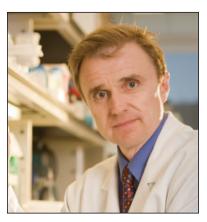
The upper panel shows melanoma cells in a tumor model that have metastasized to lung tissue and formed cancerous tumors. In the lower panel, the KISS1 gene has been turned on. The arrows point to what appear to be tiny dots. These barely visible dots are single melanoma cells which the KISS1 gene has rendered dormant. These cells are unable to grow and form into cancerous tumors.



INNOVATIVE IMMUNOTHERAPY



Wayne Marasco, M.D., Ph.D. - NFCR Center for Therapeutic Antibody Engineering, Dana-Farber Cancer Institute, Harvard Medical School, Cambridge, is discovering and engineering therapeutic antibodies for clinical applications in cancer. The Center has established a library containing 1.6 billion different human sFv antibodydisplaying phages, a tremendous resource for developing monoclonal antibody-based targeted therapies. In the past year, Center researchers identified high affinity human sFv antibodies against a unique domain of a selected cancer target for renal cell carcinoma. These reagents could be useful in developing new immunotherapies and diagnostic tools for kidney cancer patients.



Laurence J.N. Cooper, M.D., Ph.D. – *MD Anderson Cancer Center*, *Houston*, is developing new cutting-edge technology which genetically engineers human immune cells for the treatment of leukemia and lymphoma. The safety and feasibility of this novel immunotherapy was demonstrated in a phase I clinical trial in patients with CD19+ lymphoma.

To further improve the safety of this immunotherapy, Dr. Cooper has developed an innovative method that enables the engineered immune cells to target only leukemia or lymphoma cells, thereby limiting harmful targeting of normal cells. Plans are underway for the next-generation clinical trial in which a donor's immune cells will be engineered to target only cancer cells once infused back to patients during their bone marrow transplantation. The improved safety and specificity will result in more successful transplantations.



Rebecca W. Alexander, Ph.D. – Wake Forest University, Winston-Salem, is investigating protein-to-nucleic-acid interactions which are fundamental to cellular processes in both normal and tumor cells. This research will provide scientists with more knowledge in designing new antibiotics that are particularly important to fight infections in cancer patients whose immune systems are often destroyed by radiation and chemotherapy.

SOFT TISSUE SARCOMA RESEARCH

Dina C. Lev, M.D. – MD Anderson Cancer Center, Houston, has led her team in the discovery of a potential treatment for the aggressive soft tissue sarcoma known as malignant peripheral nerve sheath tumor (MPNST). This research was supported by the Hope Fund for Cancer Research, founded by Marianne and Ken Bouldin after their daughter Jen was diagnosed with sarcoma. Dr. Lev's team blocked primary and metastatic tumor growth in preclinical models by combining inhibitors of enzymes that regulate gene expression

with agents that block autophagy – a state where cancer cells conserve energy. These encouraging preclinical results support the use of this novel therapeutic approach in a clinical setting to treat MPNST patients, who presently have no effective treatment.

TARGETING OVARIAN CANCER



Robert C. Bast, Jr., M.D. – MD Anderson Cancer Center, Houston, discovered that the protein Salt Inducible Kinase 2 (SIK2) plays a critical role in cell division and regulates the response of ovarian cancer to chemotherapy. By depleting SIK2 in models of ovarian cancer, Dr. Bast was able to sensitize cancer cells to taxanes, a commonly prescribed class of chemotherapeutic agent that inhibits cell division, making the drugs more effective in stopping the cancer's growth. These findings demonstrate that combination therapies targeting different phases of the cell division cycle are vital for new and better approaches to treating

The discovery that SIK2 plays a role in cell cycle regulation is groundbreaking as previously the protein had only been linked to cellular metabolism and energy balance. And now, in addition to improving the response of some cancers to taxanes, these findings add support to emerging evidence that cancer cell metabolism and cell division functions are linked.

This research breakthrough has now set in motion the drug discovery process to identify inhibitors of SIK2. Ovarian cancer patients are in great need of more effective treatment approaches and this new understanding of how to enhance treatment looks very promising.

IDENTIFICATION OF NEW THERAPEUTIC TARGETS



Wei Zhang, Ph.D. – MD Anderson Cancer Center, Houston, is conducting an in-depth investigation of small pieces of RNA (microRNAs) in the blood that may serve as biomarkers for colorectal cancer. Using blood samples from healthy donors and patients with stages I through IV colorectal cancer, Dr. Zhang and his team have identified one microRNA that may predict prognosis for stage IV colorectal cancer. Moreover, the microRNA was found in blood samples of patients from two distinct ethnic populations, strengthening its validity as a biomarker. MicroRNAs may represent a key advancement in the search for valuable blood biomarkers for colon cancer that may be translated into clinical applications including prognosis, monitoring response to therapy, and detecting disease recurrence to save patients' lives.



Jiayuh Lin, Ph.D. – Children's Research Institute, Columbus, is working with his team of scientists to develop more effective anti-cancer compounds to combat the most deadly cancer killer – pancreatic cancer. Dr. Lin's team designed

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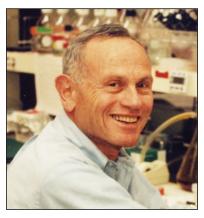
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and synthesized a new small molecular agent, LLL12, to inhibit STAT3 protein, a novel drug target in pancreatic cancer. In the past year, Dr. Lin has demonstrated that LLL12 inhibits STAT3 in human pancreatic cells and works synergistically with standard chemotherapeutic agents, to reduce cell growth. These promising results indicate that LLL12 may be a potential drug to combine with conventional chemotherapy drugs to achieve more powerful anti-cancer effects for pancreatic cancer patients.



Curt I. Civin, M.D. - University of Maryland, Baltimore, is elucidating how the survival, proliferation, and differentiation of normal and malignant blood stem cells are regulated, with the goal of translating these findings into useful clinical tools. Dr. Civin's team discovered a set of microRNAs functioning as powerful "master switches" that control the maturation of adult bloodforming stem cells. Breaking the code of blood cell maturation may one day enable scientists to grow new blood cells for transplantation into patients with cancer or other bone marrow disorders. In the past year, Dr. Civin's research suggests two microRNAs may also function in normal blood cells to suppress the development of leukemia. Stay tuned for the development of the clinical potential of microRNAs for treating leukemia, as these scientists unravel the functions of these master biological switches.

CANCER PREVENTION



Michael B. Sporn, M.D. – Dartmouth Medical School, Hanover, is developing new triterpenoid compounds for the prevention and treatment of cancer. His highly fruitful research has resulted in several triterpenoid compounds which have potent preventative effects against liver cancer, melanoma, and highly aggressive lung cancer. Two triterpenoids have been evaluated in clinical trials for cancer treatment. He is now trying to determine whether triterpenoids can prevent the development of pancreatic cancer in tumor models. Convincing results in preventing pancreatic cancer in the laboratory could be rapidly translated to the clinic to evaluate the effectiveness of these compounds in preventing this devastating disease among people who are known to be at high risk.

Janos Ladik, Ph.D. – *University* Erlangen-Nürnberg, Erlangen, Germany, is conducting research on DNA intercalating agents—anti-cancer drugs that wedge themselves into the DNA double helix to interfere with cell division and the making of RNA and proteins. Cells that are rapidly dividing such as cancer cells are inhibited by certain intercalating agents. Dr. Ladik uses theoretical physics and super computers to investigate the use of DNA intercalating agents as cancer preventive agents, inhibiting the formation of cancercausing mutations and thereby preventing cancer initiation.



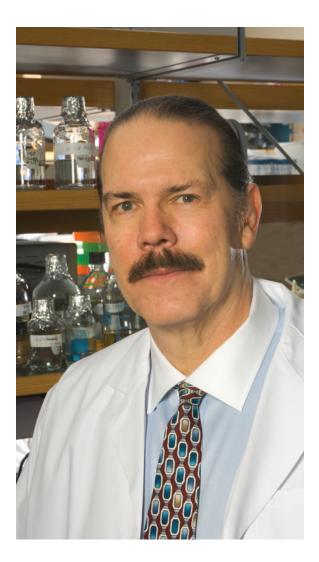
Helmut Sies, M.D. – Heinrich-Heine-Universität, Düsseldorf, Germany, is well recognized for his discovery of the skin cancer prevention effects of the carotenoid, lycopene, the antioxidant found in tomatoes and carrots. His recent research has shown that another carotenoid, astaxanthin, which can be found in the skin and tissues of a variety of sea creatures including salmon, trout, and lobster may be another valuable resource for the prevention of UVA-induced skin damage.

MOLECULAR IMAGING

James Basilion, Ph.D. – NFCR Center for Molecular Imaging, Case Western Reserve University, Cleveland, is building a new technology platform utilizing molecular imaging for early detection and improved treatment of cancer. The Center is currently focused on developing advanced, highly-sensitive imaging tools to detect single or multiple molecular markers specific to various cancers such as breast, prostate, and brain cancer. Utilizing an entirely new technique that permits the simultaneous imaging of multiple molecular markers, scientists in this Center make it possible to identify cancer at a very early and more treatable stage, significantly improving patients' chances of survival. Technologies developed at the Center can also help surgeons determine tumor margins during an operation and make it possible for more complete surgical removal of aggressive, infiltrated tumors.

CANCER TERMINATOR VIRUS

NEWLY ENGINEERED TARGETED CANCER THERAPY OFFERS HOPE FOR CANCER PATIENTS



NFCR scientists, led by Paul B. Fisher, M.Ph., Ph.D., Virginia Commonwealth University, have developed a viral "smart bomb," which destroys cancer cells without damaging surrounding healthy tissue.

This new cancer treatment is a genetically reprogrammed virus developed by Dr. Fisher that specifically targets, infects, and destroys tumor cells. This newly engineered "Cancer Terminator Virus" employs a special gene element discovered by Dr. Fisher that

makes it possible for the Cancer Terminator Virus to replicate in tumor cells, but NOT in normal, healthy cells. This is the first "Punch." This new smart control system ensures that the Cancer Terminator Virus targets, infects, and destroys only tumor cells, without causing the dangerous side effects associated with so many radiation/ chemotherapies that also kill healthy cells.

"ONE-TWO PUNCH" AGAINST CANCER Cancer Terminator Virus targets both the primary tumor and cancer cells that have metastasized

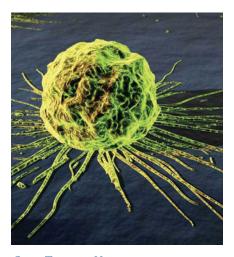
Dr. Fisher's team engineered the Cancer Terminator Virus so that it delivers the cancer-killing virus coupled with the immune modulating molecule, interferon gamma (IFNγ), directly

into the tumor and surrounding cancer cells. A natural product of our body's immune system, IFNγ elicits an immune response against any cancer cell whether infected or uninfected with the Cancer Terminator Virus. The IFNγ molecules promote and energize the immune system to seek any cancer cells—including those that have metastasized—and destroy them without harming normal healthy cells. This is the second "Punch" to cancer, and the unique feature of the Cancer Terminator

Virus, which makes it especially useful for refractory cancer patients whose tumors have stopped responding to other treatments, and for those whose cancer has metastasized.

MICROBUBBLES WITH ULTRASOUND: STEALTH DELIVERY

Dr. Fisher's NFCR team has overcome a major hurdle facing viral therapies when administered into a patient's bloodstream, protecting the therapeutic virus from being quickly deactivated by the body's immune system before it can deliver its therapeutic payload to the cancerous tissue. By using a new medical contrast agent called microbubbles, along with ultrasound, Dr. Fisher has developed a rapid, effective, and safe delivery system, enabling the Cancer Terminator Viruses to target the cancer in a stealth mode, thereby avoiding the body's antiviral immune responses. The Cancer Terminator Virus is finding and destroying cancer cells when administered in the blood. Dr. Fisher's Cancer Terminator Virus may soon be used to treat patients in a clinical trial. This is another example of how research cures cancer. NFCR is Research for a Cure.



Cancer Terminator Virus: New Frontier of Molecular Medicine

SZENT-GYÖRGYI PRIZE FOR PROGRESS IN CANCER RESEARCH



2010 Prize Winner Peter K. Vogt, Ph.D. with his wife, Hiroko I. Vogt

The 5th Annual Szent-Györgyi Prize for Progress in Cancer Research was awarded to Peter K. Vogt, Ph.D., Professor in the Department of Molecular and Experimental Medicine at The Scripps Research Institute, La Jolla, California. The Prize was presented to Dr. Vogt on March 16, 2010 at the Hilton New York during an award ceremony featuring a keynote address by John Lechleiter, Ph.D., Chairman, President, and Chief Executive Officer of Eli Lilly and Company.

Dr. Vogt's research, which began on a humble chicken virus in the early 1960s, has profoundly changed biology and medicine. His groundbreaking discovery of *src*, the first cancer-causing gene, or oncogene, launched a new era for cancer research and made seminal contributions to our present understanding of the role of oncogenes, proto-oncogenes and many other critical molecular mechanisms of cancer. Today, Dr. Vogt continues to be a leader in multiple aspects of cancer research, including initiatives that use some of the most important oncogenes as therapeutic targets — initiatives that are bringing renewed hope to cancer patients.

"Dr. Vogt's fundamental discovery of cancercausing genes in retroviruses shed the first light on the genetic paradigm that now dominates our understanding of cancer development in humans," said Ronald A. DePinho, M.D., Chair of the 2010 Szent-Györgyi Prize Selection Committee and the 2009 Prize recipient. "His groundbreaking work has yielded several of the most important targets in cancer therapy. We are honored to present this coveted award to an individual of iconic stature."

Dr. Peter Vogt's revolutionary research on *sre* has led to the discovery of additional oncogenes, including *myc, jun,* and PI 3-kinase, that play a key role in human cancer and have become household names in the world of cellular signaling research. His current work on cancer-specific

mutations in p110, the catalytic subunit of PI 3-kinase, has demonstrated that these mutations confer oncogenic activity on the protein, making them highly specific cancer targets. Pursuing these targets, Dr. Vogt is now generating small molecule inhibitors that can interfere with their role in cancer causation. Dr. Vogt's distinguished career may have begun with oncogene discovery, but it has expanded in scope and now includes translational studies aimed at developing novel therapeutic approaches for cancer patients.

Dr. Vogt has received numerous awards and honors, including the Gregor Johann Mendel Medal, Charles S. Mott Prize, Ernst Jung Prize for Medicine, Bristol Meyers Award, and ICN International Prize in Virology. He received his Ph.D. from the University of Tübingen, Germany, and trained as a virologist at the Max Planck Institute of Virology in Germany and at the University of California, Berkeley.

The Prize is named in memory of 1937 Nobel Prize-winning scientist and NFCR Co-Founder Albert Szent-Györgyi, M.D., Ph.D., who won the Nobel Prize for Physiology and Medicine in 1937 for his discovery of vitamin C. In 1973, Dr. Szent-Györgyi helped change the face of cancer research by co-founding NFCR, to provide scientists with the financial support necessary to pursue innovative, basic cancer research. The Prize is awarded annually to a scientist, nominated by colleagues or peers, who has contributed outstanding, substantial research to the fight against cancer and whose accomplishments have helped improve treatment options for cancer patients.

"I am immensely grateful and delighted to be awarded the 2010 Szent-Györgyi Prize for Progress in Cancer Research," said Dr. Vogt. "This award marks a milestone in my scientific career and gives me both encouragement and inspiration. Albert Szent-Györgyi's consuming interest during the last two decades of his life was cancer. Being a fiercely independent man, he chose an unusual path to support his research: the establishment of a cancer research charity. By the power of his personality and his scientific stature, he succeeded in creating the National Foundation for Cancer Research. For almost 40 years, the unique focus of NFCR on basic research has provided critical support to innovative scientists and has advanced the translation of basic knowledge into successful therapy."

The 5th Annual Szent-Györgyi Prize
Selection Committee was Chaired by Ronald
A. DePinho, M.D., and Co-Chaired by
Sujuan Ba, Ph.D. Other members included:
Lewis C. Cantley, Ph.D.; Webster K.
Cavenee, Ph.D.; Carlo M. Croce, M.D.; Paul
B. Fisher, M.Ph., Ph.D.; Richard Gaynor,
M.D.; Curtis C. Harris, M.D.; Michael
Karin, Ph.D.; Mary-Claire King, Ph.D.;
Perry D. Nisen, M.D., Ph.D.; Jennifer A.
Pietenpol, Ph.D.; Wai-Kwan Alfred Yung,
M.D.; and Yi Michael Wang, M.D., Ph.D.,
Committee Secretary.



Keynote Speaker John Lechleiter, Ph.D.

THE HOPE FUND FOR SARCOMA RESEARCH

Five years ago, Marianne and Ken Bouldin's daughter Jen was diagnosed with MPNST, a rare and aggressive form of soft tissue sarcoma. Says Marianne, "We listened, frustrated, as doctors explained the lack of treatment options available to sarcoma patients." The Bouldins realized that more sarcoma research was badly needed.

Fortunately, Jen made it through. But Marianne and Ken were determined to make sure that other families would not have to go through the same frustration. When Jen was pronounced cancer-free, Marianne and Ken established the **Hope Fund for Sarcoma Research at NFCR**. "Our goal was to provide research funding for an improved understanding, and ultimately, effective treatments for MPNST and other sarcomas," says Marianne. Their efforts are paying off: Hope Fund scientists have made several major scientific observations, one that will soon be published and two that are under review by major cancer research journals.

The Hope Fund just hit the \$200,000 mark – news that comes at a time when Marianne and Ken are rejoicing over two new blessings in their lives – daughter Jen's twin babies! Today, Jen remains cancer-free, and thanks to her parents' ongoing effort to support sarcoma research, she and the 10,000 other patients diagnosed yearly with soft tissue sarcomas may have a better chance of living out their entire lives cancer-free.



Sarcoma survivor and new mother, Jen Bouldin, with her twins Luke Alexander (left) and Riley Elizabeth (right).

TAKING ACTION



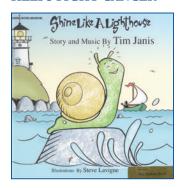
New Answers for Cancer: NFCR Donors are helping us solve the Cancer Puzzle – helping us solve the scientific mysteries of cancer to bring promising new therapies to patients with outstanding results.

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AGAINST CANCER



BARBARA BUSH CHILDREN'S BOOK HELPS FIGHT CANCER



Former First
Lady and
reading advocate
Barbara Bush
joined composer
Tim Janis and
the National
Foundation for
Cancer Research
on the children's

book, *Shine Like a Lighthouse*. The book is an empowering story about a snail who uses his positive attributes to "shine." 100% of net proceeds from the sale of the book go to the Cancer Patient Assistance Fund at NFCR. "Children are a bright light in the world and every child is so special. It is my sincere desire that this book will become a beacon of light to those whose families, children and other loved ones are suffering from cancer," said Barbara Bush.

THE ANAPLASTIC THYROID CANCER RESEARCH FUND

Dennis Ferguson, a retired high school teacher and football coach, found out last year that he has anaplastic thyroid cancer — a rare and aggressive form of cancer for which surgery is not a treatment option. Only radiation therapy combined with chemotherapy can provide any significant benefit. Most patients do not survive longer than 6 months due to the aggressive nature of this disease and the lack of effective treatments. Because this disease makes up less than 1% of all thyroid cancers, it receives very little research funding.

While researching possible treatment plans, Ferguson learned that there is very little clinical research for anaplastic thyroid cancer, so he decided to raise the seed money himself to support clinical research. He called the National Foundation for Cancer Research to discuss how to push this research focus ahead.

In just a few short weeks, Dennis raised thousands of dollars. And as this report goes to press, Dennis is just shy of his goal! The Fund supports a promising new research project led by Dr. Ezra Cohen at the University of Chicago aimed at uncovering better treatments for anaplastic thyroid cancer.

THE LUCY FUND FOR METASTATIC BREAST CANCER RESEARCH



Lucy, a college professor and mother of two, was diagnosed with metastatic breast cancer in 2008 at age 42. Says Lucy, "While there was plenty to read about breast cancer, I found almost nothing about stage IV. It was as if I didn't exist, like I was already a lost cause." Lucy turned her passion for fighting metastatic breast cancer into something bigger – The Lucy Fund for Metastatic Breast Cancer Research at the National Foundation for Cancer Research.

The Lucy Fund is dedicated to raising funds for metastatic breast cancer research – a form of the disease that took the life of Elizabeth Edwards and one that urgently demands more research funding. "While there is no cure," says Lucy, "there are therapeutic options, and if we can get more research and attention focused on stage IV, it may one day be possible to treat stage IV like a chronic, rather than a deadly, disease."

Funds raised through the Lucy Fund support Dr. Danny Welch at the NFCR Center for Metastasis Research. He and his collaborators have discovered six genes that suppress the spread of certain types of cancer – including breast cancer. Right now, Dr. Welch and his team are working to understand the mechanisms that govern how these genes work and, more importantly, considering ways that these discoveries can be rapidly translated into new targeted therapies for patients whose breast cancer has spread.

GOLF FOR A CURE

The 7th Annual Golf for a Cure Classic and Cocktail Dinner Party was held at the Kenwood Golf and Country Club in Bethesda, MD. The tournament raised nearly \$90,000, and brought golfers from across the country together for a terrific sunny day on the links and a great cause. "The day went off without a hitch, and we are so thankful for everyone who participated

and helped put the event together," said Sarah Funt, Co-Chair of the Golf Classic. "Research is crucial to improving and saving the lives of cancer patients, and we are proud to contribute these funds from Golf for a Cure to help sustain NFCR's extraordinary research programs."

This year's tournament was sponsored by Calmark, Inc., with other significant sponsorships from Med-Trust Online, Medelis, Inc., Merkle Inc., PhRMA, Atlas Wood Floors, Cabinet Discounters, George Mason Mortgage, and Jack Stone Signs. "We are so grateful to all of our sponsors and for the volunteers who sacrificed their time to work on this event," said Wendy Gowdey, a long-time cancer research supporter and Co-Chair of the tournament with Sarah Funt. "We couldn't have done it without them, and because of their contributions we were able to raise thousands of dollars to fund NFCR's groundbreaking research."

DAFFODILS AND DIAMONDS

Diamonds glittered and daffodils bloomed while beautiful models strutted the latest fashions down the runway at the 29th Annual Daffodils and Diamonds Luncheon at the Congressional Country Club in Bethesda on March 11th. The event, emceed by Alison Starling, host of WJLA TV's "Good Morning Washington," and

co-chaired by Nancy Cole and Jennifer Davidson, featured some of the area's most prominent women. This Annual Luncheon has become a spring ritual in DC, drawing hundreds of women and raising hundreds of thousands of dollars since its inception to fund breast and ovarian cancer research in the Capital region.

"Cancer is so close to home for all of us and this event is really all about celebrating the survivors, remembering those who have passed on, and committing ourselves to continuing the important fight against cancer. We all have to dig a little deeper and resolve to keep working to conquer one of the world's most prevalent life-threatening diseases," said Co-Chair Nancy Cole.

The Daffodils and Diamonds Luncheon supports breast and ovarian cancer research, education, and prevention. "Our group has the ability to work "hands-on" with NFCR to fund the research locally, and this is very important to us," said Co-Chair Jennifer Davidson.

This year's event featured fashions from Lord & Taylor, with jewelry provided by Judy Bliss. Models included Simone Feldman, Miss Maryland 2010, and additional pageant winners from the Miss Prince George's Scholarship Foundation. Sponsors included Lord & Taylor, Gucci, John Greenan & Sons Jewelers, Marriott, Bloomingdales, and others.

MUSICIANS TIM JANIS AND SARAH DARLING STEP UP TO FIGHT CANCER

Tim Janis is an American composer with a passion for making a difference: he has dedicated four Special Edition CDs to the National Foundation for Cancer Research, with proceeds to benefit cancer patients. And now, he has teamed up with country singer Sarah Darling to dedicate his new album, *The*



Journey Home, to curing cancer. Says Tim, "Nothing is more valuable than good health. Without it, we cannot enjoy those things we love most in life. That is why the two of us are dedicating our recent collaborative album, The Journey Home, to the National Foundation for Cancer Research, with 100% of the proceeds going to the Foundation's cutting-edge cancer research." Tim and Sarah also presented a CD Matching Gift Challenge to NFCR's donor community nationwide, which raised hundreds of thousands of dollars in addition to the nearly one million dollars raised through Tim's earlier efforts on behalf of the National Foundation for Cancer Research. NFCR is very grateful to Tim and Sarah for their efforts.

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THE MURIEL ETTINGER MEMORIAL FUND

Allan Ettinger of Chicago lost his mother, Muriel, when he was just 14 years old after her long battle with lung cancer. "I will never forget those painful memories of seeing her suffer both from cancer and from the side effects caused by chemotherapy." Cancer kills almost half a million Americans each year, and lung cancer is the No.1 killer in the U.S., accounting for almost 30% of all cancer deaths. Through the Muriel Ettinger Memorial Fund, Allan is raising money for lung cancer research and public education on second-hand smoke – in memory of his mom.

STRETCH TO THE CURE

Some run, some walk, but the bold STRETCH their way to the cure! Yoga and Pilates stretchers supported *Research for a Cure* by joining over 100 studios in the **Stretch to the Cure** Campaign. Throughout the week of September 20-26, 2010, yoga and Pilates studios across the country and the U.S. Embassy in Italy donated the proceeds from their classes to NFCR's cancer research. These studios understand the importance of a healthy mind and body, and are doing their part to help NFCR find cures for *all* types of cancer.

RIDE AGAINST CANCER

Ride Against Cancer is a campaign launched by two high school students, Chris Chan and Arvind Mahesh, dedicated to bringing the fight against cancer on the road. In 2010, they embarked on a bike ride from Portland to San Francisco, engaging communities along the way and spreading their message about the importance of cancer research and public education.

After watching several close friends and family members struggle with cancer, fighting this disease has become their calling. Ride Against Cancer is designed to build a movement and to rally media attention and excitement. By cycling hundreds and thousands of miles, they hope to show their dedication towards battling this disease and inspire those who hear their story. They are playing a role in helping accelerate the research, cure, and prevention of cancer. Inspired by the courage it takes to fight cancer, the group of teenagers will be back on their bicycles in the summer of 2011, tackling the dry deserts and high mountains of the West. The team will set out to complete a grueling 1,000 mile journey in just 10 days, riding from San Francisco to Salt Lake City.

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STICK IT TO CANCER

High school and collegiate field hockey teams from Maine to California held "Stick it to Cancer" games designated to support cancer research. Teams wore **Stick it to Cancer** t-shirts and celebrated the cancer survivors among their families, friends, and fans. The ultimate **Stick it to Cancer** Challenge took place at the Southern Collegiate Athletic Conference (SCAC) Tournament in Greencastle, Indiana. Five field hockey teams – DePauw, Centre, Rhodes, Sewanee and Hendrix – came together to see who could raise the most funds for cancer research! The winner? De Pauw University!



NFCR LEGACY SOCIETY

The Legacy Society recognizes donors who have chosen to create a substantial legacy in cancer research by leaving a gift to NFCR through their estate, or by utilizing other planned gift vehicles to support NFCR's cutting-edge cancer research. We are grateful to these donors for their dedication and foresight and are proud to recognize them through membership in the NFCR Legacy Society.

Members of the Legacy Society may designate their gifts to NFCR in general, to a specific NFCR research program, for work focused on a specific cancer type, or to a favored aspect of cancer research.

Estate gifts are made through a will or trust. Planned gifts are generally made from a donor's assets. Important financial, tax, and estate planning goals should be taken into consideration as such commitments are made in order to maximize the benefit to both

the donor and NFCR. Therefore, NFCR encourages donors to consult with their tax or legal advisors before making a planned gift commitment. Inquiries from advisors are welcome.

Enrollment in the NFCR Legacy Society is simply a matter of advising NFCR of the creation of a legacy gift: a bequest in a will or through a living trust, designation of NFCR as a beneficiary of a retirement plan or IRA, an investment or savings account, or a life insurance policy. Society members receive invitations to special Legacy Society events, and frequent cancer updates from NFCR containing information on the newest developments in the fight against cancer. We always honor requests for donor anonymity, but hope that by sharing the names of our generous Legacy Society donors, others will be inspired to join them and make their own lasting contribution to cancer research.

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EXTRAORDINARY SUPPORT

2010 was distinguished by the extraordinary breadth and depth of support for NFCR. An unprecedented number of donors, corporations and foundations made gifts totaling more than \$17 million. We are deeply grateful to all of our donors for their generosity and confidence in our vision of *Research* for a Cure. Every gift, large and small, is an investment in new and better ways to prevent, diagnose and treat cancer. NFCR is about cancer research, for research will cure cancer.

On these pages, we are pleased to recognize those individual donors, corporations, and foundations who made significant gifts to the National Foundation for Cancer Research in 2010.

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