

CANCER-FIGHTING LIFESTYLE

We believe that cancer prevention is critical for the fight against cancer. By eating healthy foods and sticking to a healthy lifestyle, you can prevent or significantly reduce your risk of cancer.

Did you know that eating cooked tomatoes may reduce the risk of prostate, skin, and other types of cancer? Tomatoes contain lycopene, the natural pigment that gives the fruit its red color and is the major cancer-fighting nutrient. The anti-cancer properties of lycopene are strongest when tomatoes are cooked.

Once tomatoes are cooked, lycopene will be in much higher concentration and will allow the body to more easily absorb and use the nutrient. For more about cancer-fighting lifestyle approaches and recipes, please visit nfc.org/cancer-fighting-lifestylechannel

THE POWER OF YOUR DONATION

\$250 Supplies 1 case of lab dishes to grow cancer cells to identify the abnormal genes

\$500 Allows 1 antibody test to determine if cancer cells have a drug resistance marker

\$1,000 Performs genome-wide analysis in 1 tumor sample to develop targeted and precision medicine

\$2,500 Tests effectiveness of new immunotherapy in cancer cells

\$5,000 Conducts molecular biology assays to test if treatments inhibit the spread of cancer

\$10,000 Purchases 5,000 experimental compounds to identify new drugs that inhibit metastasis



WAYS TO GET INVOLVED

Gifts with Immediate Impact



Cash gifts can be made by check, credit card, or via a donor advised fund (DAF).



Honor & Memorial Giving: Donate via mail or online to memorialize or pay tribute to a loved one. [Visit nfc.org/memorial](https://nfc.org/memorial)



Monthly Giving: Join us as a Champion for a Cure with your monthly sustaining gift. It is quick and easy to sign up. [Visit nfc.org/monthly](https://nfc.org/monthly)



Stock gifts (long-term securities, including stocks and bonds) can offer significant tax benefits.



Charitable IRA Rollovers can be made directly from a traditional or Roth IRA to NFCR. Donors must be at least 70 ½ years old. Charitable IRAs may provide tax benefits. Check with your attorney on the benefits of your contribution.



Corporate Matching Gifts: If your company has a matching gift program, you can enhance the impact of your gift. Check with your HR Department for guidelines and gift matching forms.

Create a Legacy



Charitable Gift Annuities are gifts that provide guaranteed income to a donor for life (and/or life of a spouse) with a portion eligible for tax deduction.



Wills or Living Trusts are popular because they are easy to arrange and may be changed at any time you choose. A provision or amendment prepared by your attorney is all that is necessary.

THANK YOU FOR YOUR SUPPORT

National Foundation for Cancer Research
a 501c(3) tax-exempt charity (Tax ID: 04-2531031)
5515 Security Lane, Suite 1105, Rockville, MD 20852
[NFCR.ORG](https://nfc.org) | 1-800-321-CURE (2873)



NATIONAL FOUNDATION
FOR CANCER RESEARCH

Research for a Cure

Select Cancer Research Achievements 2021 SNAPSHOT

— MADE POSSIBLE BY NFCR SUPPORTERS —

Together, we can make the **triumph of science** possible. Together, we will leave no cancer behind. Together, we can provide **hope** to the millions of people diagnosed with cancer each year. Your continued partnership in our mission is critically needed to fund high-risk, high-reward research that will save lives.

TRIUMPHS IN TRANSLATIONAL RESEARCH

NFCR is proud to recognize prominent scientists who are pioneers in “translating” their early discoveries made in the lab into effective treatments through pre-clinical studies. Translational research propels groundbreaking cancer therapies closer and faster to patients’ bedsides.

On October 30, NFCR held a hybrid event, allowing for in-person and virtual audience engagement. The day consisted of three events to celebrate progress in translational research and entrepreneurship.



Think Tank Forum on Translational Cancer Research & Investments in Oncology

Many world-leading translational cancer researchers discussed three areas: **1. Immunotherapy 2. Precision Medicine 3. Investment in Oncology Start-ups.** This forum helps our research community remain at the cutting edge of science where breakthroughs become new drugs and technologies to best detect and treat cancer.

Luncheon & Fireside Chat on Women’s Leadership, Entrepreneurship & Mentorship in Life Sciences

Women leaders discussed this timely topic; NFCR now provides extensive opportunities for coaching, networking, and financial resources for female-led oncology start-ups. We celebrated the innovative achievements from our tailored program to help underfunded women entrepreneurs in oncology.

Dinner & Award Ceremony for Szent-Györgyi Prize for Progress in Cancer Research

Dr. Susan Horwitz, supported by NFCR donors for over 20 years, received the 2020 Szent-Györgyi Prize. She pioneered how Taxol and other anti-tumor drugs from natural sources work, benefiting over 1 million breast, ovarian, lung, and pancreatic cancer patients.

Dr. Tak Mak and Dr. Mark Davis, discoverers of the structure of T-cell receptors - a critical part of contemporary immunotherapy, received the 2021 Prize. Their efforts bring increased clinical benefits to patients with blood cancer and solid tumors.

IN MEMORY OF A PASSIONATE SUPPORTER



As we prepared the below highlight of the Alvin H. Baum Family Fund for its loyal support of NFCR, we sadly learned of the passing of their Executive Director.

In her memory, and that of too many others, our scientists continue to race in the marathon to beat this terrible disease.

“As a metastatic breast cancer patient undergoing treatment, I intimately know that patients and research are in a marathon. The record speed in the development of the COVID-19 vaccine came from the groundwork of past research. Other diseases demand similar critical attention and research. We have supported NFCR since 1999. We appreciate that their national position promotes a thoughtful continuum where feedback loops from across the country to inform research, coordination, and collaboration. NFCR helps break down the silos that stifle research.”

—Erika Cornelisen
Executive Director,
The Alvin H. Baum Fund



Joel Friedman
President,
The Alvin H. Baum Fund



SELECT RESEARCH ACHIEVEMENTS MADE POSSIBLE WITH YOUR SUPPORT

Detect, Treat & Monitor Metastatic Cancer

Since 2008, NFCR supporters helped **Paul Fisher, M.Ph., Ph.D.** develop IL/24 gene immunotherapy to treat many types of metastatic or spreading cancer.



With genetic engineering of a package of genes together with IL/24, the therapy can:

- **Detect** cancer when combined with genes that direct it to only cancer cells.
- **Treat** cancer by causing cells to commit suicide (not healthy cells!)
- **Monitor** treatment effects with an added imaging gene that medial scans detect the shrinking tumors.

This therapy and other versions sensitize cancer cells to immunotherapy, chemotherapy, and radiation.

IL/24 gene therapy is advancing through pre-clinical research with NFCR's AIM-HI Translational funding. InterLeukin Combinatorial Therapies, Inc. will first bring IL/24 **gene therapy to clinical trials to treat fatal brain cancer, giving patients fresh hope.**

Inhibiting Cancer's Blood Vessels to Halt Cancer

Xiang-Lei Yang, Ph.D. and her team discovered a new piece to the puzzle of how blood vessel formation is regulated that may significantly impact cancer treatment.



Previously, Dr. Yang identified a protein-building enzyme, SerRS, that inhibits the formation of tumor blood vessels - starving cancer of oxygen needed for its growth. Her team has now identified proteins in breast cancer cells that silence SerRS so new blood vessels could sprout and tumors can flourish.

When the scientists used an inhibitor to block the proteins, SerRS could again inhibit blood vessel formation and halt tumor growth.

Development of approaches to keep SerRS active in cancer cells could become a new effective anti-cancer therapy.

Precision Medicine for Uterine Cancer Patients

Wei Zhang, Ph.D. used cutting-edge technologies on 547 uterine cancer (or endometrial) samples to learn why a subset of patients with advanced cancer have a favorable response to chemotherapy and greater survival. His team discovered how specific mutations in the *IK* gene in some samples sensitize the cancer to chemotherapy.



These results may guide stratification of future patients and their prognosis and help replace "one size fits all" therapies —with precision medicine based on a tumor's unique genetic profile.

Benefits of Tumor Microenvironment Research

Rakesh Jain, Ph.D. advanced his renowned research on the environment around tumors and our immune system.



- Demonstrated exercise in breast cancer brings cancer-killing immune cells into tumors, resensitizing cancer to immunotherapy!
- Applied a model for cancer therapy based on inflammation and the immune system — to make COVID-19 treatments more effective.

These findings have significant implications for improving treatment efficacy and patient survival.

Restoring Precious Vision in Cancer Patients

Some cancers produce antibodies that reach and damage the retina, causing blindness in patients. Gene therapy pioneers **Jean Bennett, M.D., Ph.D.** (shown top) **and Katherine Uyhazi, M.D., Ph.D.,** are combining gene and cell replacement therapy to restore the damage in the retina. Pilot transplantation of healthy retinal cells into disease models shows that cells survive the method. Genes will now be added for complete cell functioning.



Your support gives many cancer patients hope they may see again.

SEMI-FINALISTS



ADVANCING WOMEN LEADERS & ENTREPRENEURS IN ONCOLOGY

2021 Semi-Finalists: (top row, l to r) Maria Varela | Stacy Blain, Ph.D. | Amanda Schalk, Ph.D. | Johanna Holldack, M.D. | Annelise Soulier, Ph.D. (bottom row, l to r) Cathy Swindlehurst, Ph.D. | Amanda Guth, Ph.D. | Izabela Tworowska, Ph.D. | Martina Roos, Ph.D. | Ronit Satchi-Fainaro, Ph.D.

The AIM-HI Accelerator Fund was established in 2019 with a grant from NFCR. It is a non-profit organization assisting translation of cancer drug discoveries by investing in early-stage oncology companies, including ones associated with NFCR-affiliated scientists.

One shared highlight of the two organizations in 2021 is the 2nd annual **AIM-HI Women's Venture Competition.** The Selection Committee screen applications from 57 start-up companies and 10 semi-finalists advanced to the virtual competition on August 2, 2021.

The winner will be announced this fall. These entrepreneurs are translating the most promising new therapies for melanoma and lung, breast, pancreatic cancers, to name a few, to patients' bedsides.

YOUNG FELLOWS PROGRAM

Lusia Gasparyan owns Amenity Healthservices and Valley Village Hospice in the Los Angeles area. She sees first-hand how patients suffer from illness and incurable diseases. To make a difference in the future of the cancer community, she found **NFCR's Young Fellows Program** fit her needs.



NFCR and Lusia believe young scientists are the essence of the continuum of cancer research that will find cures. This award program provides promising scientists with financial support and career training in basic, translational, and clinical research.

Learning from the leaders in cancer research, bright young minds can bring impactful knowledge to the cancer community and help provide long, meaningful lives to patients.

"I am proud to say that I have done my part to expand the reach of medicine by supporting the Young Fellows Program," says Lusia.

NFCR is honored to have Lusia's support and commitment to the Young Fellows Program. **Together - we can train the next generation of physician-scientists who can save lives.**



SAFeway FOUNDATION GRANT FOR NFCR CLINICAL TRIAL SERVICES

Clinical trials are a vital component to accelerating research to prevent, detect and treat cancer. A large number of clinical trials overwhelms many patients in the trial process.

To help patients navigate, qualify and participate in new treatments that can save their lives, NFCR created the **Patient Assistance Center.**

One NFCR-featured trial called CALM treats Hepatitis B-associated liver cancer patients with a botanical anti-cancer compound developed by NFCR scientists. To date, 31 patients have entered the trial's portal, 5 of whom received a further assessment, and 1 patient is enrolled to receive the alternative medicine.

A mobile-based intelligent platform developed by our partner, GoMo Health, is available to personally guide patients through their trial journey.

The Center also provides information on the latest development of clinical research and new drug trials.

Together – we can save lives. Thank you, Safeway Foundation, for being our loyal partner in Research for a Cure.

To learn more about the Center and NFCR-featured clinical trials, please visit NFCR.org/patient-hub