2025 NFCR SNAPSHOT

A YEAR OF PROGRESS. MISSION-DRIVEN IMPACT.

NFCR™
National Foundation for Cancer Research
We Make Cures Possible

2025 NFCR GLOBAL SUMMIT AND AWARD CEREMONIES FOR CANCER RESEARCH & ENTREPRENEURSHIP

Tony Hunter, Ph.D. accepts the Szent-Györgi Prize Award from Dr. Dennis Slamon and NFCR CEO, Sujuan Ba, Ph.D.

Panel dialogue from researchers, clinicians, cancer advocates and business leaders celebrated patient-centric cancer research.

On October 24, 2025, NFCR convened an extraordinary community of leading scientists, clinicians, entrepreneurs, and supporters united by one purpose: to conquer cancer together.

We celebrated innovation and collaboration. Leading-edge ideas were shared openly and partnerships formed organically. We honored one of the true giants in biomedical science whose seminal discoveries led to more than 80 drugs for patients.

From Research Discovery to Patient Impact: The AI Revolution in Cancer Research

Throughout the 2025 NFCR Global Summit, more than two dozen expert panelists, along with attendees, discussed and debated the emerging power of AI in cancer research and patient care.

From Dr. Monica Bertagnolli's keynote on making healthcare innovation work for every community, topics ranged between thought-provoking discussions about early detection and prevention, precision diagnostics, and personalized treatment. NFCR is helping lead these conversations—connecting people, ideas, and technology to move science forward and improve lives.

Key takeaways from the 2025 Global Summit include:

- AI-assisted clinical-trial matching, precision imaging, and machine-learning models are moving from theory to real-world applications.
- Panelists highlighted that AI's role in prevention is not to over-screen but to target wisely—using precision data to identify who is most at risk and why.
- Thought leaders emphasized that AI is not just improving research, it is redefining it, linking molecular discovery, patient care, and public health insight into one continuous learning ecosystem.

Dr. Monica Bertagnolli, M.D., Former Director of NIH gave an engaging keynote.

- Expert panelists discussed the concept of the molecular "digital" twin—a data-rich, individual profile, or 'avatar', built from a patient's genetic and clinical information to help predict how they might respond to treatment.
- Across all sessions, a unifying theme emerged: AI enhances, rather than replaces, the human dimension of cancer care. The doctor–patient relationship, empathy, and contextual judgment remain irreplaceable. Speakers echoed, while AI recognizes massive patterns, it still struggles with small, human details that make medicine work.

The 2025 NFCR Global Summit reinforced how artificial intelligence (AI) is reshaping the entire ecosystem of cancer research and patient care, from laboratory discovery to bedside decision-making.

We are leading and uniting the world's top scientific minds to confront these questions head-on—ensuring that innovation in artificial intelligence serves not only science, but humanity. For a complete recap, including Dr. Bertagnolli's full keynote speech and remarks from the 2025 NFCR Global Summit, **visit NFCR.org**

NFCR-SUPPORTED RESEARCHERS HELP ADVANCE LIQUID BIOPSY TECHNOLOGY

Two NFCR-supported researchers, Drs. Daniel A. Haber of Massachusetts General Hospital Cancer Center and Aditya Bardia of the University of California, Los Angeles, recently published their groundbreaking work in the high-impact publication, *Nature Communications*.

Dr. Aditya Bardia, Professor of Medicine, Geffen School of Medicine, UCLA

Dr. Daniel A. Haber, Director, Massachusetts General Hospital Cancer Center

Their collaborative progress advances the current technology to utilize leukapheresis, a process that collects and processes large volumes of blood, to capture significantly more circulating tumor cells (CTCs) compared to standard blood draws.

Metastasis is responsible for 90% of cancer-related deaths. CTCs in patients' bloodstream are cells that are metastasizing or spreading throughout the body. Information on a patient's cancer derived from the captured CTCs is invaluable to doctors and their patients.

This research breakthrough enhances cancer monitoring and enables more detailed molecular analyses of CTCs, paving the way for improved personalized treatment strategies, all leading to better survivorship for cancer patients.

REWRITING THE RULES OF CANCER

How Dr. Rakesh Jain's Work is Changing What We Know About Immune Evasion

Dr. Rakesh Jain, Ph.D., Director of Edwin L. Steele Laboratory for Tumor Biology, Massachusettes General Hospital

Pancreatic cancer remains one of the most aggressive and treatment-resistant cancers. Its ability to suppress the body's immune system makes it particularly difficult to treat even with the most promising therapies, like immune checkpoint inhibitors. Thanks to new research published in *Immunity,* the cancer research community is beginning to understand why.

At the heart of this breakthrough is a familiar gene: p53, often called the "guardian of the genome." In many cancers, p53 is mutated and loses its tumor-suppressing power. But what if it doesn't just stop working—what if it starts working *for* the tumor?

This new study, co-authored by Dr. Rakesh Jain, a long-term NFCR supported scientist, shows that a common p53 mutation does exactly that. The mutant protein rewires the cancer cell's genetic control panels—called enhancers—to crank up the production of a chemokine called Cxcl1. This, in turn, recruits immune-suppressing cells that block cancer-fighting T cells from reaching the tumor. The result? A "cold" tumor microenvironment that resists immunotherapy.

Crucially, the study reveals that blocking this pathway—either by deleting the mutant p53, inhibiting the enhancer regions, or disrupting its partnership with NF-kB, an inflammatory regulator—reawakens the immune system.

Dr. Jain's contribution builds on decades of his groundbreaking work decoding the tumor microenvironment. His insights have consistently pushed the field toward smarter, more effective therapies. By illuminating how specific genetic mutations reshape the immune landscape, his work is helping scientists not only understand why treatments fail—but more importantly, how to make them succeed.

At NFCR, we are proud to provide long-term support to researchers like Dr. Jain who are driving transformative breakthroughs to positively impact patients.

RELATIONSHIPS.

It's what defines NFCR and our commitment to donors.

"Research is the key to unlocking cures. Without financial resources, there is a void in new ideas and knowledge needed to beat cancer."
- Carolyn, Steadfast NFCR Supporter

From Dorothy, a Long-time NFCR Supporter.
"Cancer is a beastly disease that brings misery to people. I believe in NFCR, and the science they support will help make a difference."

"If we are going to succeed at this "moonshot" goal to rid the world of cancer, it will be an organization like NFCR leading the charge."
- Joel, Loyal NFCR Supporter

Each donor is special to us. Each donor is part of the fight against cancer with us. Without you, cancer research breakthroughs are not possible.

As we approach the end of 2025, please help us reach our goal to unlock (and exceed) a $50,000 match gift provided by one of our generous donors.

THANK YOU!

JOIN THE CONVERSATION & STAY IN THE KNOW ON THE FUTURE OF CANCER RESEARCH

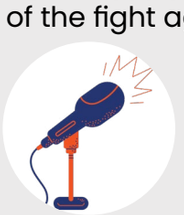
In 2025, we launched the *All Things Cancer* podcast. Since its launch, this new public education channel has been wildly popular and has proven to be an effective communications vehicle to engage with existing and new audiences for NFCR.

Each episode (now on episode #12) shines a spotlight on the most pressing topics in oncology, from cutting-edge

Episode #10 Featuring Dr. Drew Pardoll on the Power of Immunotherapy.

treatments and emerging discoveries, to personal stories of resilience and hope. More than just a podcast, it's a platform for raising awareness, advancing cancer education, and fostering a global community of support and collaboration.

Cancer impacts everyone—whether you're a patient, caregiver, advocate, or researcher—this podcast delivers invaluable insights from those on the frontlines of the fight against it.



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Scan the QR code with your phone to give online at NFCR.org/donate.

CANCER RESEARCH WORKS BUT ONLY WITH YOUR HELP.