

Cancer Awareness  
through Research  
and Education

# CREATING A FUTURE WITH EARLY DETECTION

You're Making an Impact



**OUR MISSION:**

Funding innovative  
world-class cancer research

# CELEBRATING OUR 25<sup>TH</sup> YEAR AND YOUR INCREDIBLE IMPACT

Our vision has stayed the course over time. We have inspired the community to fund world-class, breakthrough cancer research and treatment initiatives at local premier institutions, with the intention to enhance quality of life. Our funded projects have attracted other donations along with major grants, magnifying the impact of CARE's original investment.

## OUR STORY BEGAN WITH A COMMUNITY WISH

In 1997, Desert Mountain resident Sylvia Owens and two others were receiving treatment for their breast cancer at the Mayo Clinic. Post successful treatments, they decided to organize a golf tournament to raise money for breast cancer research. They raised \$25,000 in cash and checks and delivered it to their doctor at the Mayo Clinic in a brown paper bag. That was the humble beginnings of Desert Mountain CARE.

## CARE TODAY

Annual golf tournaments and other community events, since 1997, have provided critical funds for many types of innovative cancer research projects. To date we've donated \$8.6 million to the Mayo Clinic and HonorHealth Research Institute, thanks to the continued support of the Desert Mountain community, corporate sponsors and the strategic vision of the CARE Board of Directors.



## OUR COMMITMENT TO CANCER RESEARCH, PREVENTION, AND EARLY DETECTION

When your doctor says the word *cancer*, it elicits a visceral reaction. Is it too late for me?

Prevention and early detection have been a clear research focus. Physicians have moved from being able to do very little to treat their patients to achieving survival and cure rates no one would have believed possible just a generation ago. Today, thanks to relentless research focused on cause, prevention, genetic detection and treatment, that is no longer the case.

To beat cancer, early detection and diagnosis are essential. Thanks to the expanding arsenal of new tools, researchers can now identify the presence of genetic markers earlier than ever before and predict a person's chance of developing cancer in their lifetime. They search for specific mutations in genes,

chromosomes or proteins. When these markers are present, it allows physicians to monitor and/or take early interventions. Since the early 1970s cancer survival rates have more than doubled, partly due to these advances, especially in families with a history of cancer.

Another exciting advancement at HHRI in cancer awareness is the RADAR program — the use of high-tech imaging procedures, which allow for better understanding of a patient's tumor, resulting in a more defined and successful treatment program.

CARE's commitment to treating cancer through early detection, when we have the best chance of successful treatment, is why we funded the Mayo Clinic's INTERCEPT, Inherit and Gemini programs.

## RESEARCH TIMELINE 1997-2022



**1997**  
CARE was founded and hosted its first golf tournament, raising \$25,000 in cash, which was delivered to the Mayo Clinic in a brown paper bag.



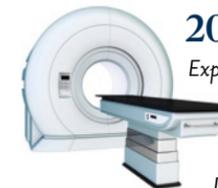
**1998-2006**  
Exclusively funded breast cancer research at Mayo Clinic



**2007-2015**  
Funded breast cancer along with Prostate Cancer research projects at Mayo Clinic



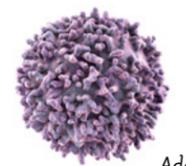
**2008-2011**  
Commenced funding of Breast & Prostate Cancer research projects at HonorHealth Research Institute



**2012-Present**  
Expanded investment at HonorHealth Research Institute to include Early Detection Initiatives, Rapid Detection & Assessment of Response (RADAR) Cellular Therapy.



**2016-Present**  
Expanded investments at Mayo Clinic to include Early Detection initiatives that include Liquid Biopsies & Optimizing Drug Delivery to Tumors, and the INTERCEPT program to understand sporadic cancer that may be inherited.



**2021**  
Investing in the Multiple Myeloma Adoptive T-Cell Therapy Clinical Trial at Mayo Clinic and Rare Cancer initiatives at HHRI.

# SUPPORTING EARLY DETECTION CANCER RESEARCH PROJECTS AND INVESTING IN THE FUTURE

During CARE's history, we have funded many essential cancer research projects. This report will highlight two leading-edge projects, in particular, that focus on the study of hereditary pre-disposition of cancer, early detection and treatments.

**Project Lead:**

Dr. Ronald Korn, MD, PHD

**Project Name:**

RADAR

**Research Institution:**

HonorHealth Research Institute (HHRI)

**Originally Funded:**

2012-2014

## RADAR (Rapid Detection and Assessment of Response)

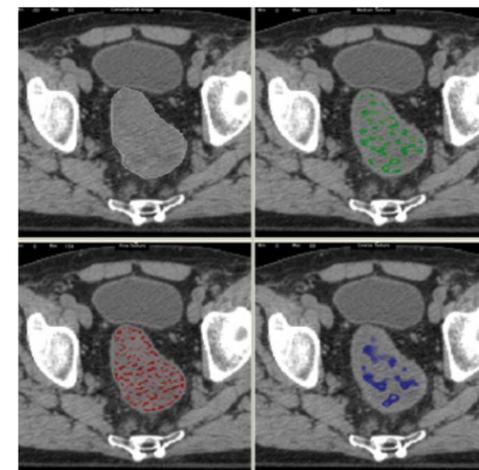
RADAR is an important and novel program that provides physicians with advanced imaging tools and procedures coupled with high-tech analytics which enable them to detect and diagnose cancer earlier and determine if the treatment protocol is effective. Because of CARE's continued support, RADAR moved from research testing to clinical application.

**HONORHEALTH**

Research Institute

## CARE FUNDING IMPACT:

- Advanced imaging tools which give physicians the ability to characterize the biological makeup of a patient's tumor, which helps them design targeted treatments based on their understanding of a patient's *specific* tumor.
- This **first-of-its-kind clinical trial** is aimed at actually "seeing" the delivery of cancer treatments through the use of advanced imaging. Physicians can quickly see the patient's response to treatment, thereby reducing or eliminating weeks or months of ineffective treatments.
- Because of CARE's funding, HonorHealth Research Institute (HHRI) was able to develop a **strategic and collaborative partnership with the University of London**. This partnership provided HHRI with access to TexRAD (Texture + Radiology), which uses high-tech software to uncover aspects of medical images that are typically invisible to the naked eye.
- Quantitative computerized tomography (a high-tech method of medical imaging analysis) was found to be about **90% accurate in determining whether a patient's with certain tumors had a specific cancer-causing gene mutation**, providing an alternative for invasive biopsies.



A standard CT scan (top left) with the tumor outlined in white. With the TexRAD software applied, healthcare professionals can analyze the tumor's texture at a fine (red), medium (green) and coarse (blue) level.

Credit: Feedback pic



*"The RADAR program will enable us to identify the right treatment early on and have better treatment success rates for patients. Using non-invasive, high-specific analytic tools and imaging techniques, RADAR physicians will be able to monitor a patient's response to chemotherapy or radiation."*

Ronald Korn, MD, PhD,  
RADAR Principal Investigator

Through the clinical application of RADAR, physicians can now...



**SEE**  
DETAILS OF A TUMOR  
PREVIOUSLY INVISIBLE



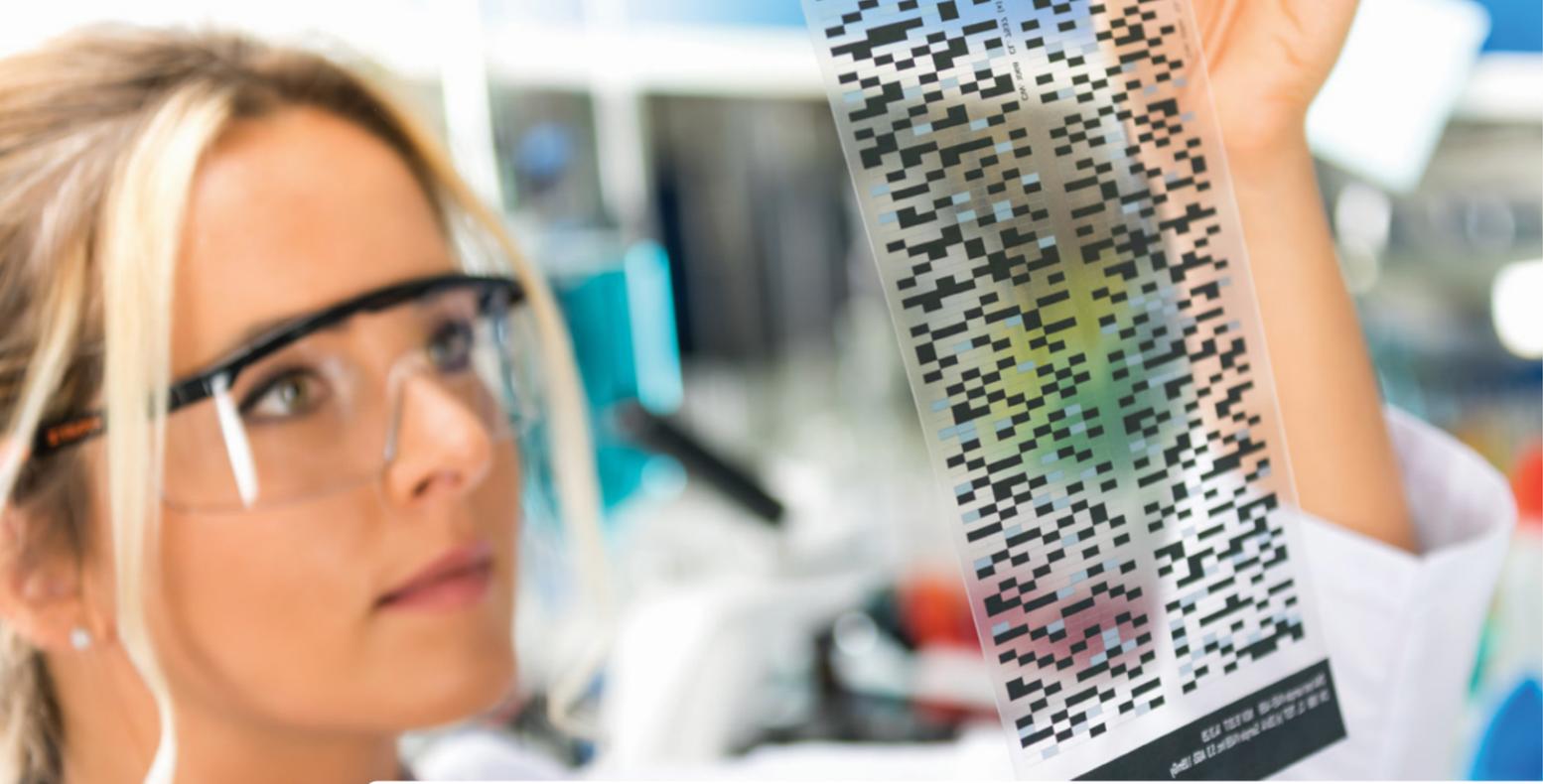
**TARGET**  
TREATMENTS FOR  
SPECIFIC TUMORS



**LEARN**  
A TUMORS RESPONSE  
TO TREATMENT



**OFFER**  
AN ALTERNATIVE TO  
INVASIVE BIOPSIES



Genetic testing represents new opportunities to identify predispositions to cancer, physicians can recommend preventative measures, better cancer management and targeted therapies by using precision medicine to treat cancers more accurately.

**Project Lead:**  
Dr. Jewel Samadder, MD

**Project Name:**  
INTERCEPT, Inherit and Gemini

**Research Institution:**  
Mayo Clinic

**Originally Funded:**  
2018–2020



## INTERCEPT (Interrogating Cancer Etiology Using Proactive Genetic Testing)

CARE provided funding for the INTERCEPT program that developed a new and powerful way to **detect and prevent cancers by identifying genetic mutations** that indicate if a person has an inherited pre-disposition to certain cancers. When these mutations are discovered, the physician can prescribe specific preventative measures and targeted therapies to improve survival rates.

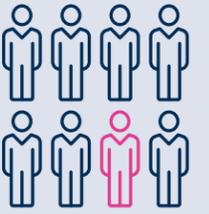
The results of the INTERCEPT project led to including people from **populations that are typically overlooked** in cancer research—Hispanics, African Americans, Asians and Native Americans. These populations expanded the focus of the INTERCEPT program, and the new projects were named **Inherit** and **Gemini**.

## CARE FUNDING IMPACT:

- The INTERCEPT study included over 3,000 cancer patients at three Mayo Clinic destination sites. They found that 1 in 8 cancer patients had an inherited predisposition to cancer and that nearly half of these would have been missed if solely relying on current recommendations for genetic testing. The results of this study were published in the *Journal of the American Medical Association—Oncology*.
- The INTERCEPT study demonstrated that some people are genetically predisposed to developing certain types of cancer, such as breast or colon cancer. It was the largest multi-center study of cancer patients, testing various types of cancer at different stages of progression. **As a result of this testing, about a third of patients that had high risk genetic mutations had changes in their medical and surgical management.**
- Genetic testing impacts not only a single patient, but their entire family. Through testing, physicians can recommend preventative measures, better cancer management and targeted therapies to all family members that will improve outcomes and save lives.



- **Inherit** is a follow-up study in Florida that promotes genetic testing into community-based clinical practices. The study is primarily aimed at different ethnic populations who have historically been underserved. By advancing the use of genetic testing it is hoped that **community-based standards of care will evolve, improving survival rates and outcomes.**
- The **Gemini** study focuses on ethnic populations seeking cancer care at the Mayo Clinic in Arizona. This study will help to determine the **prevalence of certain genetic mutations in specific ethnic groups and reduce barriers to precision cancer medicine.**



**1 in 8**  
OUT OF 3,000 CANCER PATIENTS HAD AN INHERITED PREDISPOSITION TO CANCER



*“Some people are genetically predisposed to developing certain types of cancer, such as breast or colon cancer. By identifying the genetic basis of cancer we can intervene earlier with more precise therapies and thereby improve one’s chance of cure.”*

Dr. Jewel Samadder, MD



## CANCER

OUR COMMITMENT TO  
CANCER RESEARCH AT  
MAYO CLINIC AND HHRI



## AWARENESS

WITH AWARENESS  
COMES PREVENTION AND  
EARLY DETECTION



## RESEARCH

IN 24 YEARS, \$8.6 MILLION  
INVESTED IN INNOVATIVE  
CANCER RESEARCH PROJECTS



## EDUCATION

RESEARCHERS SHARE THEIR  
FINDINGS WITH THE DESERT  
MOUNTAIN COMMUNITY

# CARE CELEBRATES 25 YEARS OF FUNDING WORLD-CLASS CANCER RESEARCH

Together we've achieved an incredible amount in the last 24 years, but there's still  
much more to be done before we see a day where cancer is defeated.

None of what we've achieved would have been possible without **YOU**.



PO Box 3740, Carefree AZ 85377 [CARE@caredm.org](mailto:CARE@caredm.org)

Cancer Awareness through Research and Education (CARE) is a 501(c)(3) organization.