

# KIDNEY CANCER RESEARCH PROGRAM



**MISSION:** To promote rigorous, innovative, high impact research in kidney cancer for the benefit of Service Members, Veterans and the American public

**Congressional Appropriations  
FY17-FY24:  
\$285M total**



"It's impossible to understate the impact KCRP and the research it funds is making for patients and their families. As a metastatic kidney cancer survivor and former clinical trial participant, I know firsthand that lives are saved by clinical research. KCRP's focus on funding research that allows doctors and scientists to ask bold questions that deserve answers provides crucial dollars that are often not available elsewhere. These research findings, especially for rare kidney cancer subtypes that are devastating and deadly to our brave Armed Forces members and other Americans, provides the oncology community with a way to save patients that was inconceivable as recently as ten years ago. The research would not happen if it weren't for CDMRP. This program saves American lives every day by providing a funding mechanism for monumental research."

*Laura Esfeller, KC Cure, FY23-FY24  
Programmatic Panel Member*

## SCOPE OF THE PROBLEM

### In 2024<sup>1</sup>

- **10th** most common cancer
- **Estimated 81,610** new cases diagnosed
- **Renal cell carcinoma** is the **deadliest** urological cancer
- **~ 14,390** deaths expected



### Incidence is

- **2X higher** in males than females
- **More common** in African American and Native American populations






## RELEVANCE TO MILITARY HEALTH

### Risk factors may include:

- Cigarette smoking among Veterans
- Environmental and occupational exposures during service
- Due to contaminated drinking water at Camp Lejeune, stationed U.S. Marines and their Families may develop kidney cancer at a 35% higher risk<sup>2</sup>

### 2013-2022 Military Health System Medical Encounters<sup>3</sup>

 Average Patients per Year	 Out-Patient Encounters	 Hospital Bed Days
<b>164</b> Service Members	<b>6,344</b> Service Members	<b>1,708</b> Service Members
<b>11,669</b> Other DOD Beneficiaries	<b>422,905</b> Other DOD Beneficiaries	<b>88,441</b> Other DOD Beneficiaries

## PROGRAM PRIORITIES

- Increase understanding of the biology of kidney cancer
- Develop novel therapeutic strategies for the treatment of kidney cancer
- Improve patient care for kidney cancer
- Grow the field and increase collaboration in the area of kidney cancer

<sup>1</sup> American Cancer Society. Cancer Facts & Figures 2024.

<sup>2</sup> 2014 CDC Camp Lejeune Contaminated Drinking Water Report.

<sup>3</sup> Defense Medical Surveillance System, The Armed Forces Health Surveillance Branch, Defense Health Agency, Silver Spring, Maryland, 2013-2022; March 2024.



For more information, visit: <https://cdmrp.health.mil/kcrp>

## PROGRAM IMPACT AND OUTCOMES

*The KCRP supports research investigating several potential therapeutic strategies.*

**Antibody-drug conjugates**  
targeting  
chromophobe  
renal cancer

**Small molecule inhibitors**  
targeting glucose  
transport in renal  
tumor cells

Identification  
of antigens for  
**personalized  
vaccines**

**Theranostic drugs**  
combining imaging  
and tumor target  
suppression

## EXPANDING RESEARCH CAPACITY AND COLLABORATION

### Academy of Kidney Cancer Investigators

Develops **new kidney cancer investigators** while pursuing some of the most **challenging research questions** in renal cancer.

★ Dean

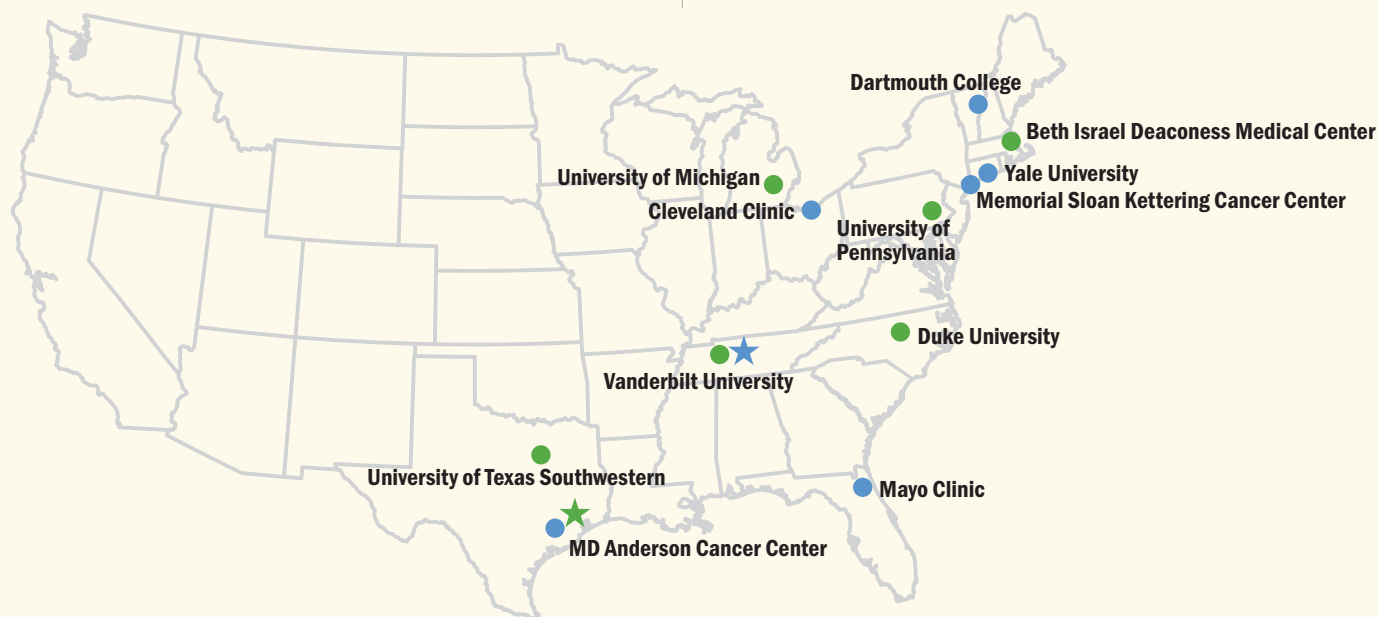
● Scholar

### Kidney Cancer Research Consortium

Supports a consortium composed of a coordinating center and six sites to perform multicenter, tissue-rich, **transformative clinical trials**.

★ Coordinating Center

● Clinical Trial Site



## RESEARCH ADDRESSING UNIQUE POPULATIONS

Preclinical models and biological mechanisms to understand the impact of exercise on **renal medullary carcinoma** pathogenesis

- Affects populations vulnerable to **sickle cell trait**
- Exacerbated by vigorous exercise, targeting **athletic and military populations**

AI Metrics, a radiology software that uses artificial intelligence to improve efficiency and accuracy of **cancer imaging analysis**

- Increases accuracy of evaluating patients with **advanced cancer diagnoses**
- Improves communication and quality of care

Innovative genetic approaches for understanding **translocation renal cell carcinoma**, a rare and aggressive form of kidney cancer

- Most prevalent renal cell carcinoma in **pediatric populations**
- Genetic abnormalities provide resistance to conventional treatments