

How to Work with Comprehensive Cancer Centers

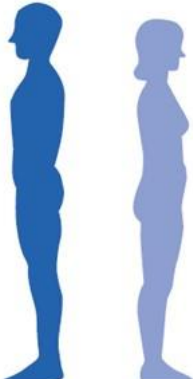
Hayley S. Thompson, Ph.D.
Research & Education Component (REC)
MCUAAAR

**My research focuses on older adults and
[insert non-cancer topic here].
Why would I work with a cancer center?**

Cancer incidence increases with age

Cancer Statistics 2023

Estimated New Cancer Cases in the US in 2023

Male				Female		
Prostate	288,300	29%		Breast	297,790	31%
Lung & bronchus	117,550	12%		Lung & bronchus	120,790	13%
Colon & rectum	81,860	8%		Colon & rectum	71,160	8%
Urinary bladder	62,420	6%		Uterine corpus	66,200	7%
Melanoma of the skin	58,120	6%		Melanoma of the skin	39,490	4%
Kidney & renal pelvis	52,360	5%		Non-Hodgkin lymphoma	35,670	4%
Non-Hodgkin lymphoma	44,880	4%		Thyroid	31,180	3%
Oral cavity & pharynx	39,290	4%		Pancreas	30,920	3%
Leukemia	35,670	4%		Kidney & renal pelvis	29,440	3%
Pancreas	33,130	3%		Leukemia	23,940	3%
All sites	1,010,310			All sites	948,000	

- **88%** of those diagnosed with cancer are 50 years of age or older.
- **57%** are 65 years or older.

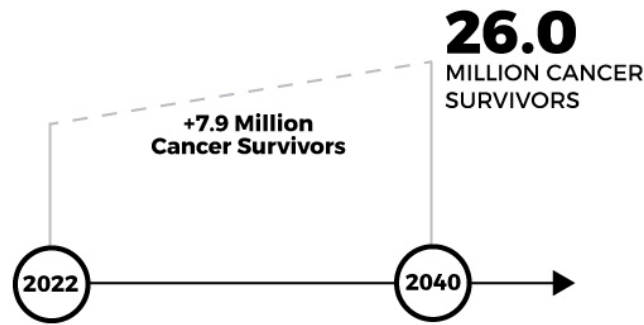
The majority of cancer survivors are older



5.4% of the U.S. population.

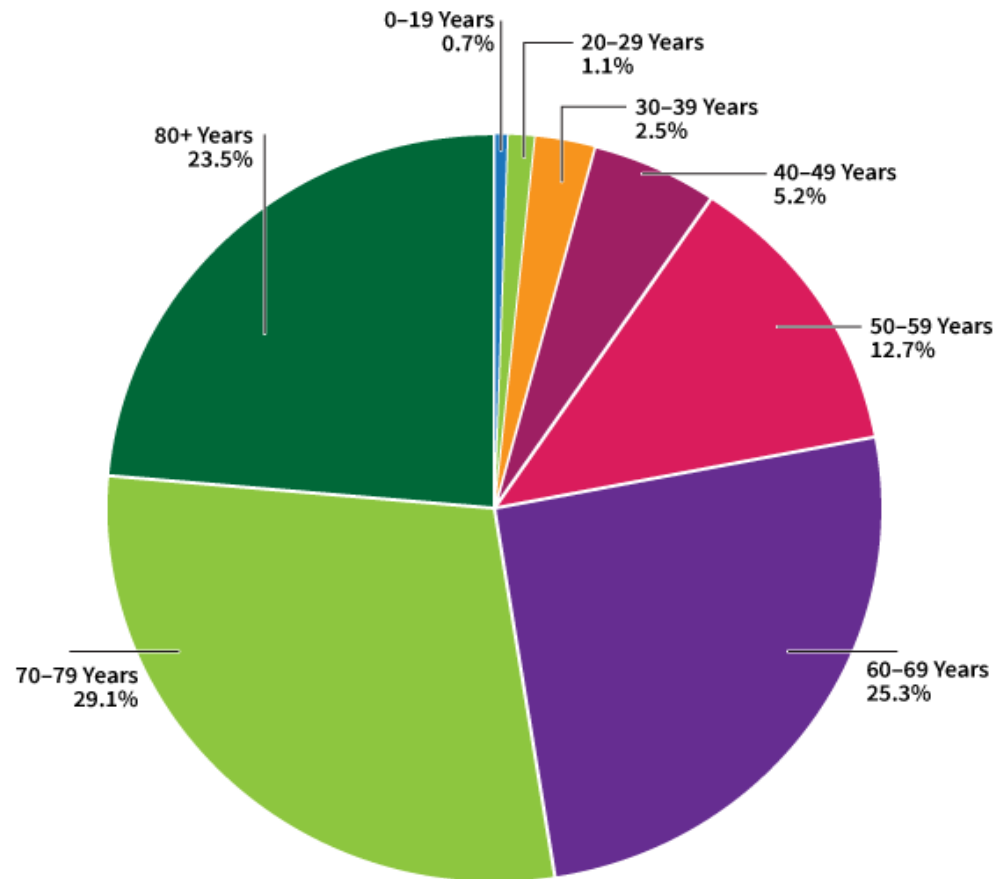


By 2040, an estimated 74% of cancer survivors will be age 65 or older.

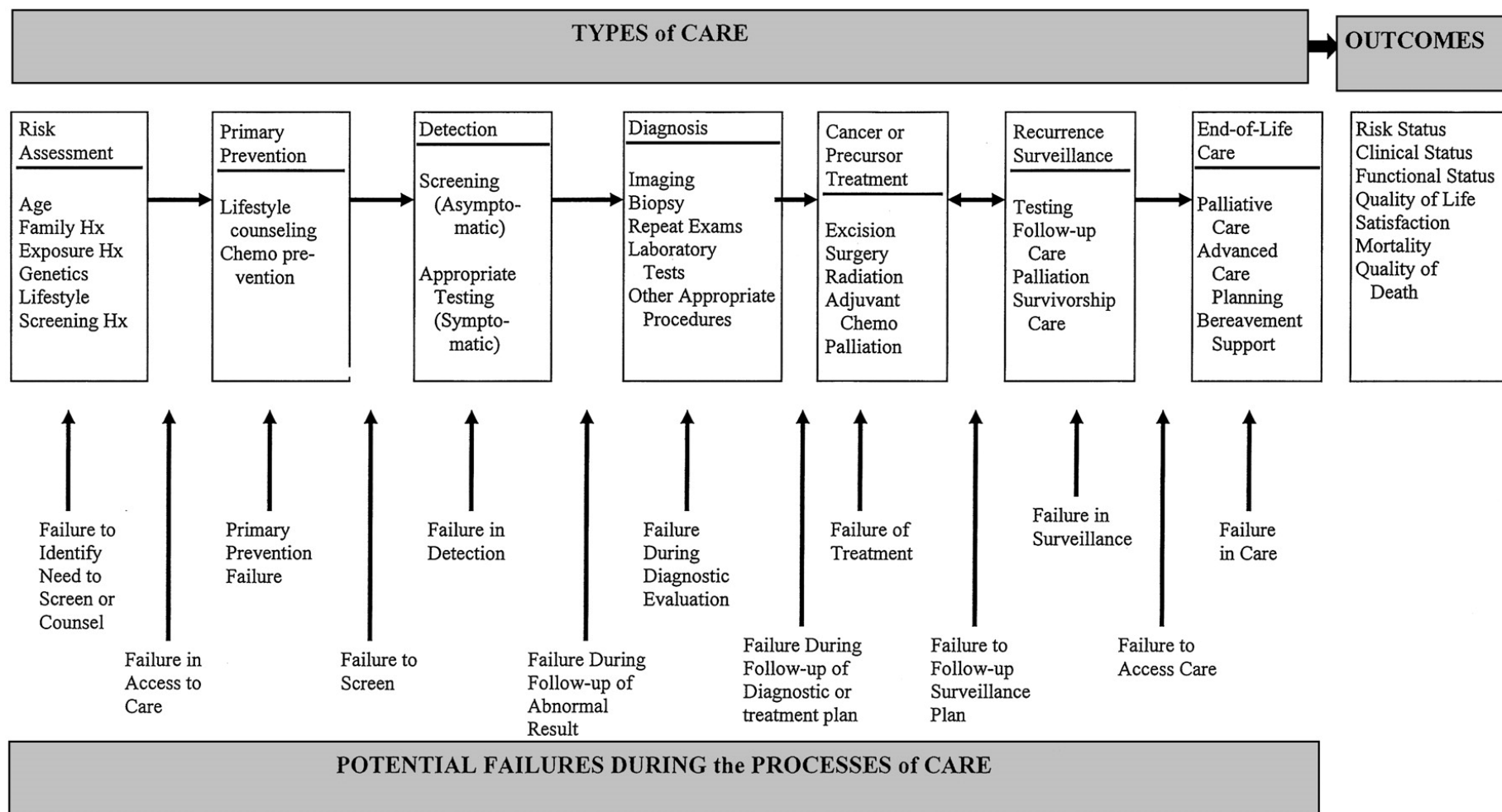


Estimated Number of Cancer Survivors in the U.S., by Current Age — More Detail

JANUARY 1, 2022



Cancer Care Continuum



Older adults have distinct vulnerabilities across this continuum.

Growing focus on older populations in oncology

- Geriatric oncology
 - The inclusion of geriatric principles into cancer care for older adults.

Geriatric assessment (GA) is a series of surveys and tests used to evaluate the overall health and well-being of older patients, especially those with cancer, by collecting information not usually obtained in a standard clinical workup. GA does not involve any extra blood tests or imaging scans.

Health domains evaluated with GA

- 1 Physical performance**
Balance, walking speed, and overall strength and fitness
- 2 Functional status**
Ability to perform daily activities (eg, dressing, bathing, hygiene)
- 3 Medical problems and daily medication use**
Other conditions besides cancer
- 4 Cognition**
Memory, mood, and concentration
- 5 Psychological status**
Levels of anxiety, depression, and other mental issues
- 6 Nutritional status**
Current weight and weight changes during the last 6 months
- 7 Social support**
Levels of social activity and support from family and friends

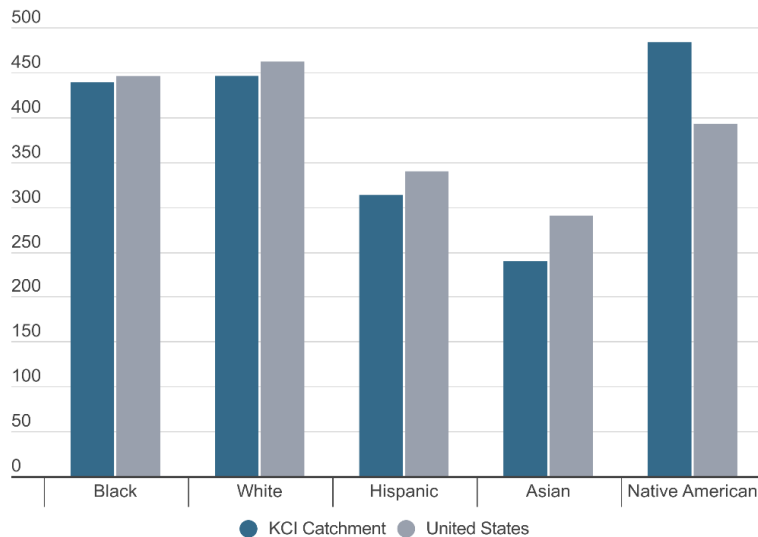


GA evaluation helps clinicians weigh the risks and benefits of cancer treatment to ensure that any proposed treatment plan aligns with the patient's goals and values.

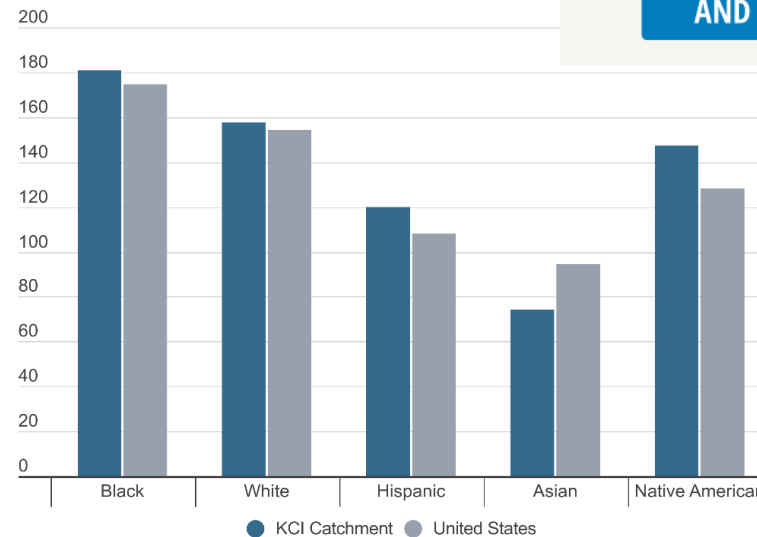
Racial disparities in cancer

Overall cancer incidence & mortality across race/ethnicity, per 100,000
(Michigan Cancer Surveillance Program & State Cancer Profiles, 2016-2020)

Incidence



Mortality



1999 → 2019
**CANCER DEATHS AMONG
BLACK PEOPLE**

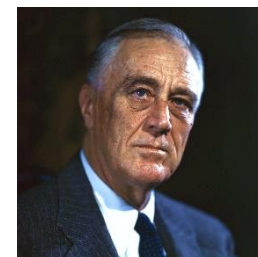
FELL 2% PER YEAR

BUT
**REMAIN HIGHER
THAN IN OTHER RACIAL
AND ETHNIC GROUPS**

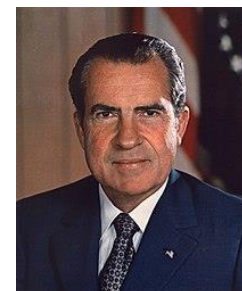
cancer.gov

Isn't a cancer center just another type of hospital?

- **The National Cancer Act of 1937**
 - Established the NCI as the federal government's primary agency to address research and training needs related to the cause, diagnosis, and treatment of cancer.
- **The National Cancer Act of 1971**
 - Part of the “War on Cancer”; First large-scale offensive initiative against cancer.
 - Supported the creation of regional cancer centers (NCI-designated cancer centers).



Roosevelt

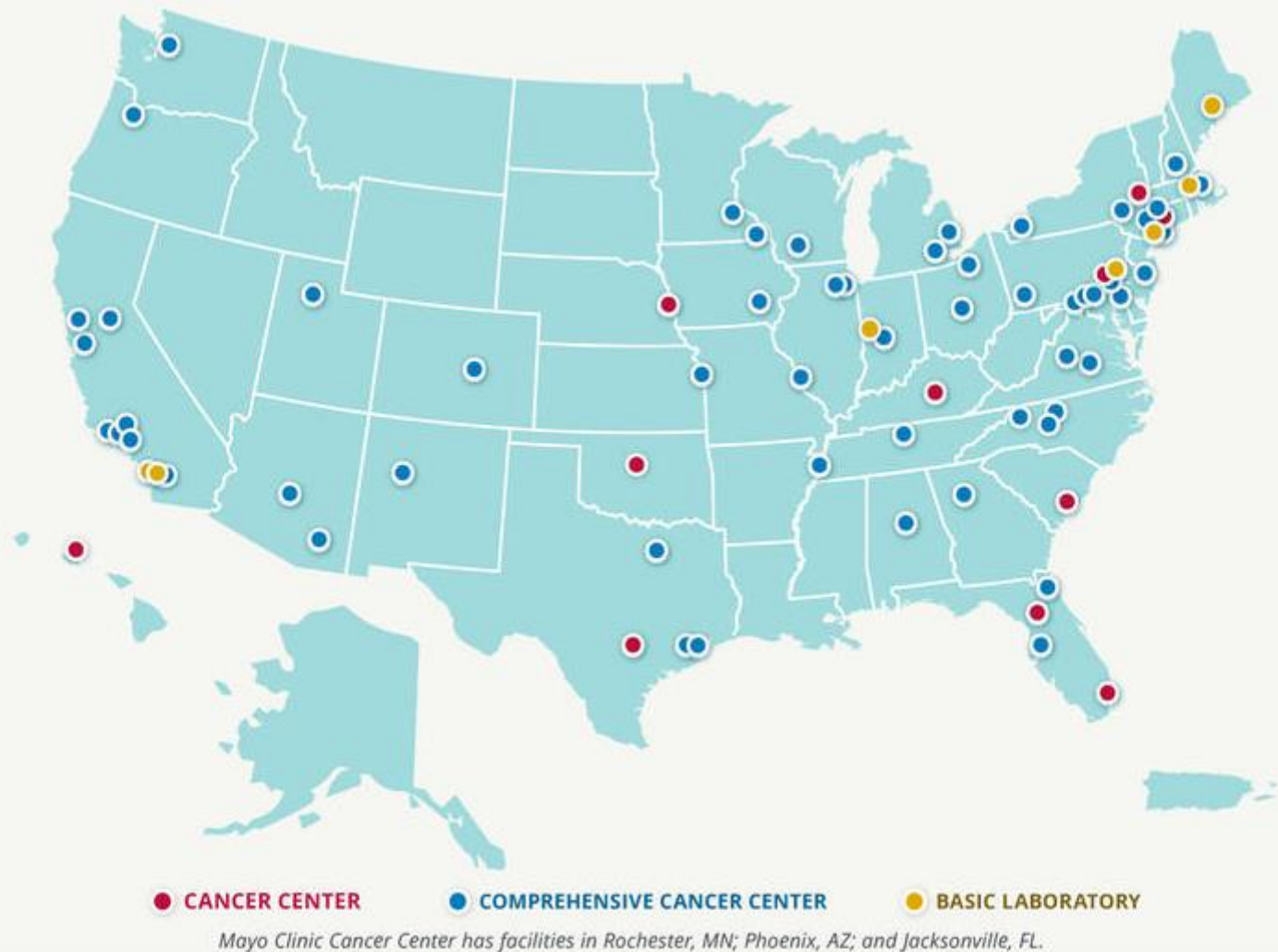


Nixon

U.S. investment in cancer research

- NIH FY23 budget: \$47.5B

National Cancer Institute (NCI); largest budget of all institutes	\$7.3B
National Institute of Allergy and Infectious Diseases (NIAID)	\$6.5B
National Institute on Aging (NIA)	\$4.4B
National Heart, Lung, and Blood Institute (NHLBI)	\$3.9B



- There are currently 72 NCI-designated cancer centers
- 56 are CCCs that demonstrate substantial depth and breadth in basic, clinical, and cancer prevention/cancer control/population science, as well as transdisciplinary work that bridges these areas.

NCI-designated cancer centers

- NCI-designated cancer centers are largely “...recognized for their scientific leadership in laboratory and clinical research...”; CCCs must include population sciences.
- NCI-designated cancer centers are research centers (academic pillar) that are typically affiliated with a hospital that provides cancer treatment (clinical pillar).
 - Research is not focuses on patients but the broader community, reflecting the cancer care continuum.
- Cancer centers recruit members: researchers whose work is aligned with the cancer center’s mission and priorities.

Three organizational structures for cancer centers

Freestanding

- The president/CEO of the cancer center and their governing board are responsible for making all decisions affecting the activities at the cancer center.

Matrix

- Cancer center members hold primary appointments in an academic department at an affiliated university (i.e., internal medicine, psychology, nursing, epidemiology, etc.) and report to the chair of their respective department.
- Center director reports to medical school deans or chairs, and they draw their faculty from other departments across the campus.

Dept. of Oncology Structure

- Rather than holding appointments in traditional medical school departments, some members hold appointments in a Department of Oncology.
- The cancer center director acts as the chair of this department

P30 Center Core Grant: Cancer Center Support Grants (CCSGs) for NCI-designated Cancer Centers

- Reviewed/renewed every 5 years
- “Application budgets are not limited...” (FY22 range across centers: \$2M - \$13M)
- Major CCSG components (CCCs)
 - Administrative Core
 - Cancer Research Training and Education Coordination (CRTEC) *
 - Plan to Enhance Diversity (PED)
 - Research Programs *
 - Community Outreach and Engagement (COE)
 - Developmental Funds *
 - Shared Resource Management *
 - Leadership, Planning and Evaluation
 - Clinical Protocol and Data Management (CPDM)
 - Protocol Review and Monitoring System (PRMS)

Research programs

- Formal interactive programs comprised of investigators with common scientific interests in goals, yielding competitively funded research grants and contracts and productive collaborations
 - “Each Program should have at least **seven** fully cancer-focused, peer-reviewed funded research projects equivalent to an NIH R01 from a minimum of five different, independent PD/PIs to be eligible.”

Michigan CCC divisions and research programs



CANCER INSTITUTE

Wayne State University

- **Population Sciences Division (Associate Director)**
 - Population Studies & Disparities Research Program (Program Leaders)
- **Clinical Science & Community Oncology Division (Associate Director)**
 - Molecular Therapeutics Program (Program Leaders)
 - Molecular Imaging Program (Program Leaders)
- **Basic Science Division (Associate Director)**
 - Tumor Biology and Microenvironment Program (Program Leaders)



- **Cancer Control and Population Sciences Division (Associate Director)**
 - Cancer Control and Population Sciences Program (Program Leaders)
- **Translational & Clinical Research Division (Associate Director)**
 - Translational & Clinical Research Program (Program Leaders)
- **Basic Science Division (Associate Director)**
 - Cancer Hematopoiesis & Immunology Program (Program Leaders)
 - Cancer Genetics Research Program (Program Leaders)
 - Signaling and Tumor Microenvironment Program (Program Leaders)
 - Developmental Therapeutics Program (Program Leaders)

Other key CCSG components

- **Developmental Funds**
 - Developmental funding that allows the Center to pursue newly identified priorities, strengthen weaker scientific areas, and explore new collaborations.
- **Shared Resource Management**
 - Access to centralized specialized technologies, services, and expertise.
- **Cancer Research Training and Education Coordination (CRTEC)**
 - Coordinate and enhance existing cancer research education, training, and career development activities.
 - Strong focus on trainees and early-stage investigators, providing research training and support with preparing grant applications.
 - This could include paying for external review.

How can I get more involved with an NCI-designated cancer center?

Tips for working with a cancer center

- Contact the Associate Director of the division most aligned with your work or the appropriate Research Program Leader and meet with them to learn more about center opportunities.
 - All centers have a multi-year strategic plan that addresses the center's priorities. Ask about the plan and about how your work might fit.
 - Even if your area isn't explicitly addressed in the plan, your research might add a new dimension to a prioritized area.
 - Cancer center leaders often have funds that can be used at their discretion for pilot work, etc.
 - Ask to be added to internal mailing lists and attend cancer center seminars, workshops, and other learning or networking opportunities.

Tips for working with a cancer center (cont.)

- Learn about the interests and projects of current cancer center members; consider possible collaborations and reach out.
- Apply to become a cancer center member.
 - Some cancer centers have different levels of membership (e.g., full vs. associate).
 - Becoming a member will ensure that you are “looped in” and aware of all cancer center opportunities.
 - You may not be eligible for internal funding opportunities without membership.

Benefits of working with a cancer center: Access

- NCI-designated centers participate in NCI's clinical trials program and participate in national research consortia.
- These centers have exclusive access to specific external funding opportunities (e.g., P30 supplements).
- NCI cancer centers are ideal for exploring Diversity Supplements
 - An R01 or R01-equivalent grant is allowed to support a maximum of two Diversity Supplement candidates.
 - An R21 or R21-equivalent grant is allowed to support a maximum of one Diversity Supplement candidate whose career level is graduate student or more junior