

# UFHealth

## CANCER CENTER

### Momentum 2027 Strategic Plan



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# Introduction

**The University of Florida Health Cancer Center (UFHCC) is a matrix center that supports cancer research and career enhancement across all six UF health sciences colleges (Dentistry, Medicine, Nursing, Pharmacy, Public Health & Health Professions, and Veterinary Med) and five of the ten other UF colleges (Agriculture, Engineering, Health & Human Performance, Journalism & Communications, and Liberal Arts & Sciences). Collaborative research is conducted by 164 members in discovery science, translation to clinical trials to test new cancer therapeutics and strategies to reduce cancer burden and decrease disparities in cancer outcomes of the communities we serve. We are committed to train a diverse and prepared cancer workforce.**

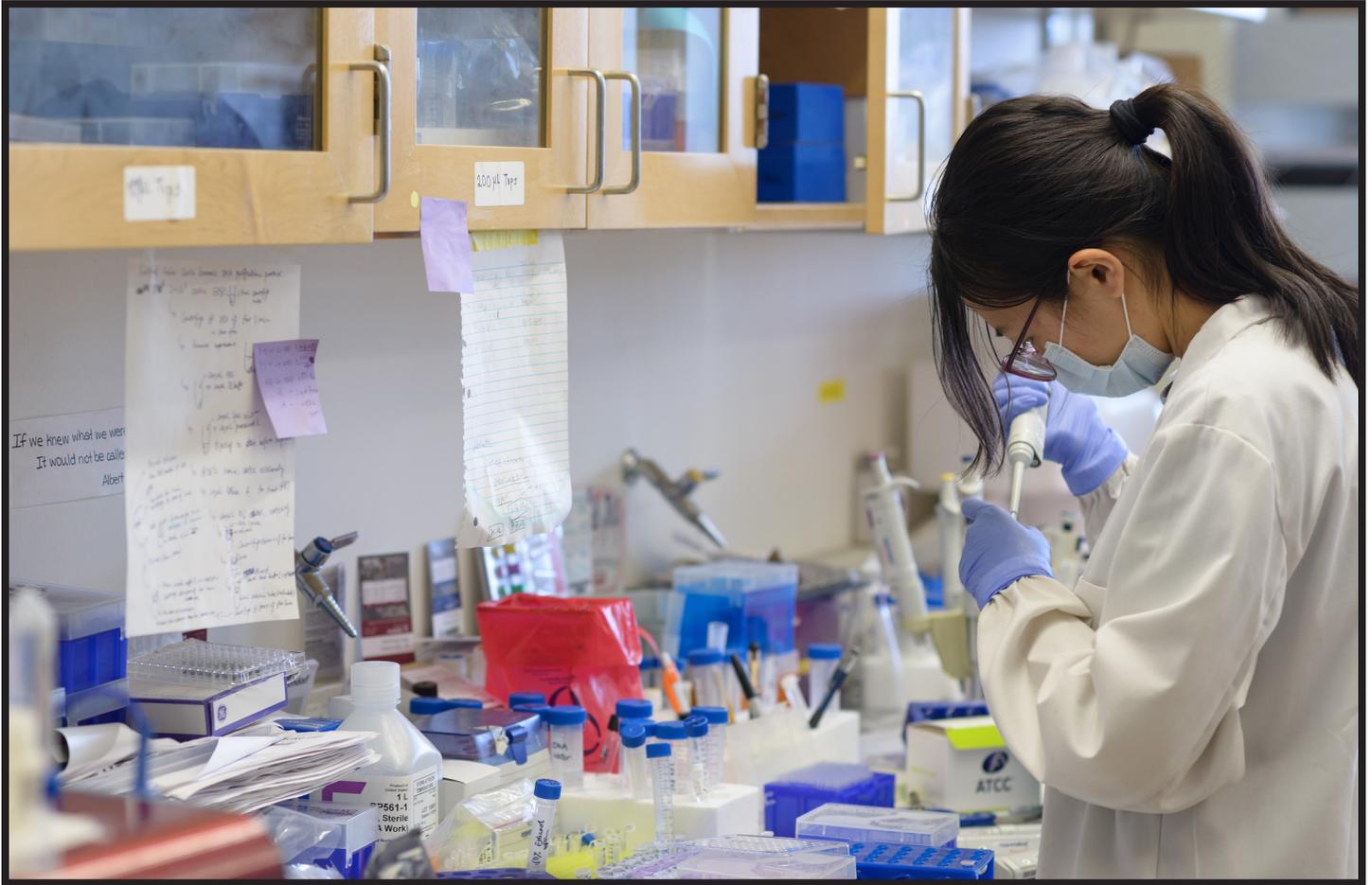
The UFHCC is the major destination of for the treatment of a broad range of cancers in North Central Florida due to its nationally ranked cancer expertise, comprehensive diagnostic and treatment resources, its distinguished faculty and staff, world-class training programs, and a portfolio of a broad range of cutting-edge treatment clinical trials.

The UFHCC serves the 2.2 million residents in the 23 counties of North Central Florida spanning ~17,500 mi<sup>2</sup>, about the size of Southern New England. Most of the counties (16) are rural and every county is classified as a Medically Underserved Area. The population includes people who are Black (16%), Hispanic (10%), and has the highest fraction (23%) of residents ≥65 years in Florida. Through community outreach, UFHCC supports efforts to increase health literacy, prevention, screening, and research engagement.

The UFHCC began initial strategic planning in 2016-2017. Following a logic model method, four focus groups representing a broad spectrum of perspectives across basic science, clinical research, population sciences, and clinical services from faculty members from six colleges were convened. A fifth group, comprised of UFHCC patients and families, was formed to address cancer care and regional needs. Information was gathered from a survey of

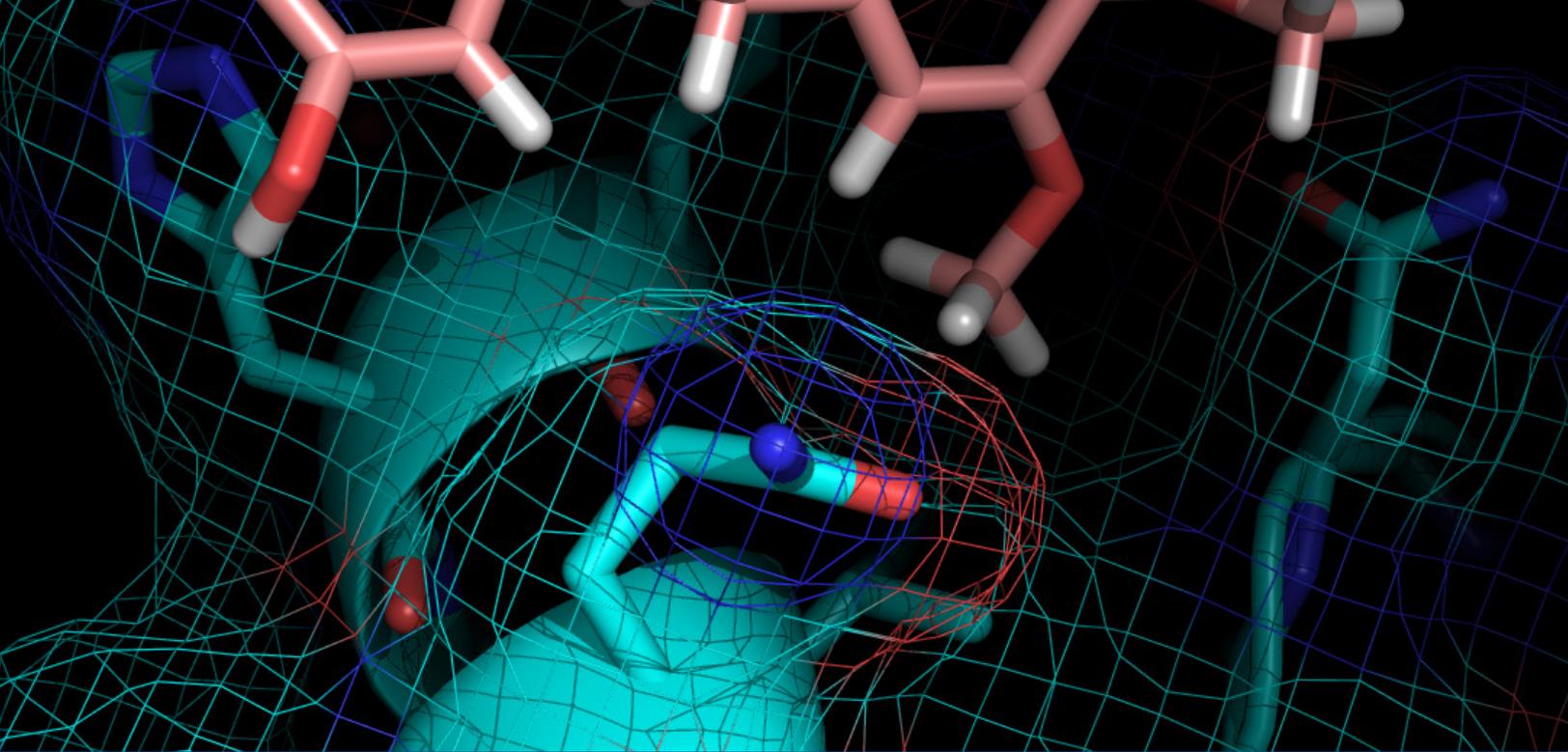
residents conducted by random-digit dial phone interviews, plus surveys of the underrepresented individuals in the UF HealthStreet cohort. This culminated in Vision 2022, which articulated the UFHCC mission to promote novel collaborative and transdisciplinary cancer research addressing the catchment area cancer burden. Vision 2022 identified scientific strengths that coalesced into three research programs leveraging scientific strengths across the entire UF campus and integrating the continuum from basic to translational research and extending to clinical and population science disciplines. The plan created priorities to guide decisions, investment of over \$135M in institutional resources, and actions to build a cancer center addressing the community cancer burden, aligned with NCI guidelines. Actions taken included reorganization of the center in the framework of the NCI Cancer Centers Program, strengthening of the research programs, recruitment of new faculty, enhancement of collaborative research through pilot grants, augmentation of shared resources, expansion of education and training opportunities, and enhancement of community outreach efforts. The leadership monitored metrics for Vision 2022 objectives annually to determine progress and adjust priorities.

Since 2016, the UFHCC has seen major growth due to strong institutional and state support, philanthropic support, and partnerships.



UFHCC has recruited 58 new members (45 external, 39 early-stage) (45% women, 17% URM). Peer-reviewed funding has increased from \$21M in 2016 to \$36.3M/yr in 2022 (up 73%) and NCI funding increased from \$9.6M to \$13.8M (up 44%). Research productivity has increased: the number of total publications per year rose from 369/yr in 2016 to 641/yr in 2022. Publications in journals with an impact factor  $\geq 10$  rose from 59/year in 2016 to 95/year in 2022. Accruals to all interventional trials rose from 515 in 2016 to 1,748 in 2022 (up 3.4-fold).

Strategic planning continuously evolves to support the goals, needs, and opportunities of the UFHCC, including pivoting to new priorities as they emerge. The UFHCC is in the final year of Vision 2022. Having met most objectives to build a cancer center in alignment with the NCI Cancer Centers Program, in early 2022, UFHCC developed a new strategic plan, Momentum 2027, to provide a framework for priorities over the next five years and to guide the future plans of the research programs and shared resources. We followed the same process of inclusivity above to develop the plan, guided by inclusion of key stakeholders across the entire UF campus and included strong input from the UFHCC Community Advisory Board. Key themes that had been emphasized in Vision 2022 were engaging the entire campus, creating a culture of working as collaborative teams, and bringing UF discovery into the clinic. The new strategic plan Momentum 2027 continues those themes and adds advancing precision medicine, engaging the community, and increasing the cancer research workforce diversity. An additional priority is to better integrate cancer clinical care and cancer research in our institution, while providing greater access of the community to participate in clinical research opportunities.



## UFHCC Mission

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The mission of the UFHCC is to prevent, detect, treat, and ultimately cure cancer while addressing the unique challenges of the cancer burden faced by the population we serve.

## UFHCC Vision

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The UFHCC will lead the nation in understanding the biology of cancer, addressing the multi-level factors contributing to the cancer burden in our diverse population, while integrating personalized prevention and treatment strategies into outstanding care, and training the next generation of cancer scientists.

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## OUR GOALS

1. Conduct transdisciplinary research that leverages expertise and initiatives across the University of Florida
  2. Translate scientific advances into personalized cancer prevention and treatment
  3. Lessen the cancer burden and reduce cancer disparities in North Central Florida and beyond
  4. Grow a prepared and diverse workforce of cancer researchers and leaders
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# Goal One

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## Conduct Transdisciplinary Research that Leverages Expertise and Initiatives across the University of Florida

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### Objectives and Tactics

#### 1. Elucidate the roles of genetic and epigenetic alterations in cancer

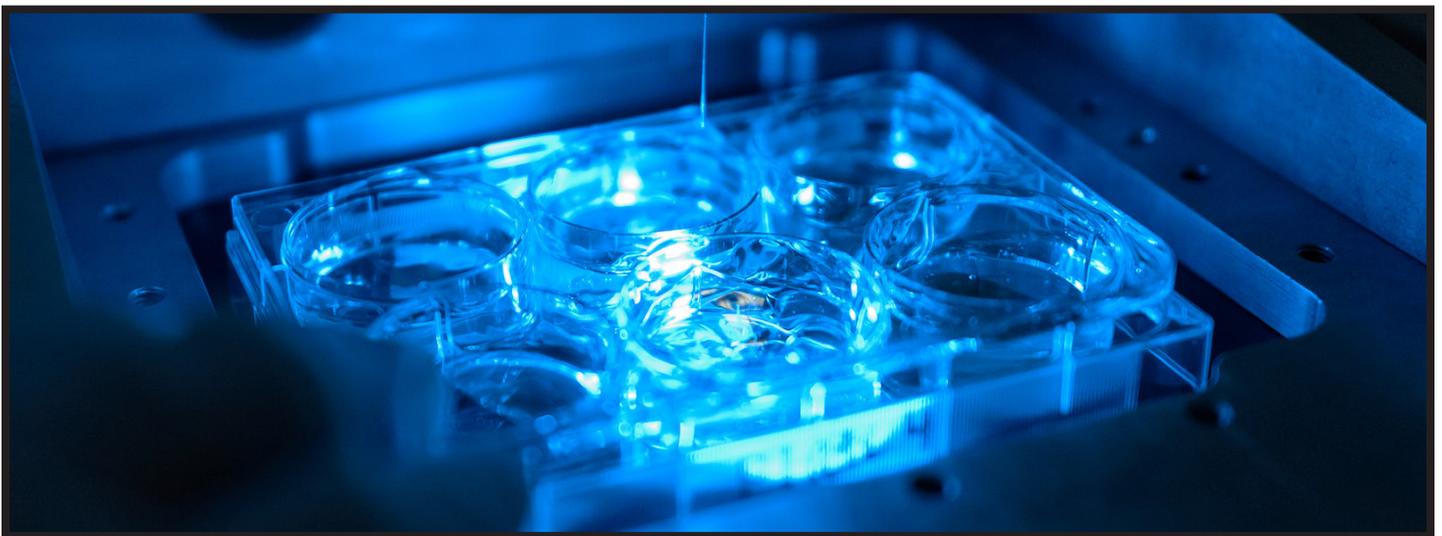
- a. Advance discovery of the critical mechanisms underlying selected oncogenes, tumor suppressor genes, oncohistones, chromatin regulators, and RNA modifying regulators to elucidate and validate therapeutic targets in solid and hematologic malignancies
- b. Study DNA tumor viruses using viral oncogenesis models to facilitate discovery of novel mechanisms on host-viral interactions

#### 2. Define the contribution of regulatory RNAs and RNA modifications in oncogenesis

- a. Develop multi-PI grants through the RNA epigenetics working group
- b. Recruit new researchers in RNA epigenetics and long non-coding RNAs

#### 3. Identify and validate novel cancer and immune cell therapeutic targets

- a. Integrate small molecule biology and microbiota-derived metabolism to define its influence on carcinogenesis, the immune system and tumor progression
- b. Provide support for comparative animal studies, expand patient derived xenograft capacity
- c. Continue priority development of immunotherapy platforms entering IND-enabling studies (e.g., CD70 CAR-T cells, RNA-NP vaccines)
- d. Recruit researchers developing and utilizing animal models of cancer
- e. Recruit faculty focused on the tumor immune microenvironment, mediators of resistance to chemotherapy, immunotherapy and immune checkpoints in tumors important to our catchment area



# Goal One (cont...)

## 4. Strengthen research on lung cancer biology and therapeutics for lung cancer

- a. Explore tumor microenvironment and heterogeneity
- b. Stimulate development of MPI applications in lung cancer
- c. Prioritize recruitment of investigators in animal models of non-small cell lung cancer

## 5. Examine the role of the microbiome in cancer development and therapeutics

- a. Expand and promote use of microbiome cancer biobank in clinical trials
- b. Study microbiome-immunotherapy interactions on checkpoint inhibitor response, cancer vaccines, oncolytic viruses and cell-mediated therapy
- c. Recruit researchers to study the effects of microbiota on immunotherapy efficacy

## 6. Investigate biological, behavioral, and social determinants of health on cancer incidence and mortality

- a. Employ integrative approaches, including artificial intelligence, combining “big data” from the EHR, cancer registry data and biospecimens to elucidate mechanisms of carcinogenesis and inform hypothesis-driven intervention strategies
- b. Examine the benefits and harms of lung cancer screening leveraging the OneFlorida Data Trust resource
- c. Conduct studies in obesity, energy balance and cancer
- d. Explore interplay of microbiome, energy balance and cancer outcomes



The ALEX (Agent Leveraging Empathy of eXams) virtual humans encourage colorectal cancer screening among racial and ethnic minorities (R01 CA207689, Janice Krieger, Ph.D (CCPS))

- e. Conduct research to address the multi-level determinants of cancer health disparities
- f. Study factors associated with the unequal burden of cancer in our region
- g. Recruit epidemiologists with interests in genetic, molecular, and environmental basis of cancer disparities

## 7. Conduct research to reduce cancer burden in the catchment area

- a. Examine social determinants of health on participation in clinical trials
- b. Optimize risk stratification models for lung and breast cancers

## 8. Develop a center for cancer and aging to improve understanding of intersection between aging and cancer

- a. Increase trainees who will specialize in cancer and aging
- b. Recruit new investigators studying the intersection between aging and cancer

## 9. Mitigate cancer symptoms and enhance long-term survivorship

- a. Determine the effect of dignity therapy on palliative care among older patients
- b. Conduct research on financial burdens and socioeconomic barriers to care/survivorship

**10. Promote transdisciplinary collaborative research by growing the portfolio of multi-PI grants**

- a. Develop MPI or program grants in blood, brain, and lung cancers
- b. Foster expanded engagement with Chemistry, Engineering, and Data Science departments to create new translational platforms for tumor development, biomarker discovery, and drug discovery
- c. Use pilot grants to promote collaboration between basic researchers and clinical investigators
- d. Link postdoctoral Ph.D. fellows and clinical fellows in team pilots
- e. Use pilot grants to develop opportunities for multi-PI grants at UF Gainesville, with UF and UF-Scripps, and with other Florida Cancer Centers

**11. Grow infrastructure to enhance transdisciplinary research initiatives**

- a. Support expansion of CYT and NGS Shared Resources
  - i. Increase access to super high-resolution microscopy
  - ii. Increase capabilities in single cell genomic and proteomic studies
  - iii. Expand advanced training in application of rigor and reproducibility standards to cytometric and genomic analyses
  - iv. Conduct continuous assessment of usage and capability to ensure efficient access and cost effectiveness

- b. Recruit artificial intelligence experts and support data integration for analysis of radiomics, biomarkers, multi-omics, and electronic health records
- c. Develop the CRISPR and Cancer Informatics Developing Shared Resources
- d. Plan and allocate the cancer space of the new Data Science and Translational Research Buildings
- e. Expand animal services including a PDX shared resource
- f. Develop a cancer patient biospecimen resource for translational investigators
- g. Grow the electronic data warehouse capabilities to monitor the progress of the strategic plan, facilitate submission of complex grants and diversity supplements and monitor CCSG programs, such as publications, funding, clinical study participation, screening and prevention activities, trainee outcomes, and workforce diversity
- h. Support collaborative research collaborations with other Florida-based cancer centers



# Goal Two

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## Translate Scientific Advances into Personalized Cancer Prevention and Treatment



UF Health's first Chimeric Antigen Receptor Therapy (CAR-T) patient.

### Objectives and Tactics

#### 1. Advance clinical research capabilities

- a. Recruit and retain clinical and translational investigators with expertise in breast, gastrointestinal, and gynecological cancers, tobacco-related lung cancer, hematologic malignancies and cellular therapies
- b. Continue support to clinical investigators by providing protected time, mentorship, and assistance in rapidly advancing concepts to clinical trials (with the IIT Think Tank initiative)
- c. Improve accuracy of cohort discovery and feasibility reviews by partnership with the developing Cancer Informatics Shared Resource
- d. Test use of virtual health assistants to educate cancer patients about clinical trials
- e. Continue initiatives to streamline and speed clinical trial review and activation

#### 2. Enhance influence on national clinical research initiatives

- a. Sponsorship of clinical investigators to achieve positions on national protocol committees, national network committees and leadership roles in national professional societies
- b. Submit a Lead Academic Participating Site or NCI Community Oncology Research Grant application

#### 3. Expand early phase clinical studies harnessing new immunotherapy strategies

- a. Prioritize immunotherapy initiatives in cancers in a range of high priority tumors in our catchment area

#### **4. Propel small molecule therapeutics from the laboratory to the clinics**

- a. Expand programs in medicinal chemistry and drug discovery through MPI collaboration with UF-Scripps

#### **5. Test strategies to reduce cancer risk, early detection and improve participation in early screening interventions**

- a. Test culturally sensitive weight control intervention
- b. Conduct research to support and/or identify new strategies to reduce tobacco use
- c. Develop and test interventions to prevent or reverse the adverse effects of cancer and cancer therapy

#### **6. Increase participation of women, older, and underrepresented minority individuals in clinical trials**

- a. Enrich clinical research portfolio with trials addressing diseases that are more prevalent in these groups
- b. Expand the screening strategies of Project CONTINUITY (Connecting You to Care in the Community) to these groups

#### **7. Engage the community as partners to develop and implement cancer communication, prevention, treatment, and survivorship**

- a. Work with the UFHCC Community Advisory Board to promote bidirectional communication by naming COE liaisons to each research program
- b. Develop strategies to facilitate the expansion of research focusing on cancer health disparities

- c. Engage the Citizen Scientists in each of the UFHCC research programs to promote improved understanding of clinical research, development of educational materials and community participation
- d. Include Citizen Scientists in investigator-initiated trial development
- e. Test culturally sensitive communication strategies for colorectal cancer screening in underrepresented individuals
- f. Test multi-level communication strategies to increase uptake of HPV vaccination

#### **8. Integrate cancer clinical services and cancer clinical research**

- a. Plan new inpatient and outpatient facilities
- b. Expand clinical cancer care that is aligned with the UFHCC research goals
- c. Extend clinical research networks across more collaborative sites in the catchment area and beyond



Rowan Milner, Ph.D. with a patient of UF's first-in-companion animal comparative oncology trials co-led with Elias Sayour, M.D., Ph.D. (CTHR).

# Goal Three

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## Lessen the Cancer Burden and Reduce Cancer Disparities In North Central Florida And Beyond

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### Objectives and Tactics

#### 1. Implement more effective cancer screening strategies through evidence-based approaches

- a. Extend Project CONTINUITY to multiple cancers and expand to additional communities while increasing understanding of the Social Determinants of Health to develop targeted interventions
- b. Support interventions to increase lung cancer screening
- c. Collaborate with UF's Obesity and Health Disparities Program to disseminate culturally sensitive weight control education, interventions, and outreach
- d. Optimize cancer screening in the elderly

- e. Implement multi-level interventions for lung and breast screening
- f. Increase financial burden interventions to promote screening and early detection
- g. Promote precision approaches to reduce the burden of cancer, especially for rural and underserved communities

#### 2. Involve the community in setting the research agenda

- a. Work with the UFHCC Community Advisory Board to promote bidirectional communication by naming COE liaisons to each research program
- b. Develop strategies to facilitate expansion of research focusing on cancer health disparities
- c. Engage the Citizen Scientists in the research programs to promote improved understanding of clinical research, IIT development and development of educational materials

#### 3. Prioritize reduction of high smoking rates

- a. Integrate smoking cessation with lung cancer screening
- b. Develop advocacy and policy initiatives with the Florida legislature to increase the Florida tobacco tax and decrease smoking rates



UF Institute of Food and Agriculture Science (IFAS) staff with farmers. UF Health Cancer Center has focused efforts on promoting skin cancer screening and prevention among farm workers in our catchment area.



The Citra Family Health Clinic is one of the partnerships that the UF Health Cancer Center Office of Community Outreach and Engagement uses to offer cancer screenings and preventive vaccines to underserved populations in our catchment area.

**4. Deliver survivorship strategies to reduce cancer care toxicity, address the needs of survivors and caregivers, and evaluate their impact**

- a. Expand collaboration with The Villages, in collaboration with a Community Advisory Board and existing advocacy groups to identify and mitigate barriers to clinical trial participation by older adults and to address concerns on cancer survivorship
- b. Promote education to prevent or reverse the adverse effects of cancer and cancer therapy in older individuals
- c. Determine the efficacy of dignity therapy on palliative care among older patients

**5. Facilitate community access to interventional and observational clinical studies**

- a. Increase enrollment in clinical trials

by underrepresented, rural, and older individuals

- a. Monitor impact of clinical trials on catchment area cancer burden

**6. Engage the Community in Advocacy and Policy Development**

- a. Grow the Health Policy Fellowship Program
  - i. Assist in development of an evaluation plan
  - ii. Expand to cancer researchers and Citizen Scientists to support them in developing opportunities to inform policy

**7. Reduce Disparities in the Catchment Area**

- a. Expand outreach to rural, underrepresented, and older residents

# Goal Four

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## Grow a Prepared and Diverse Cancer Workforce

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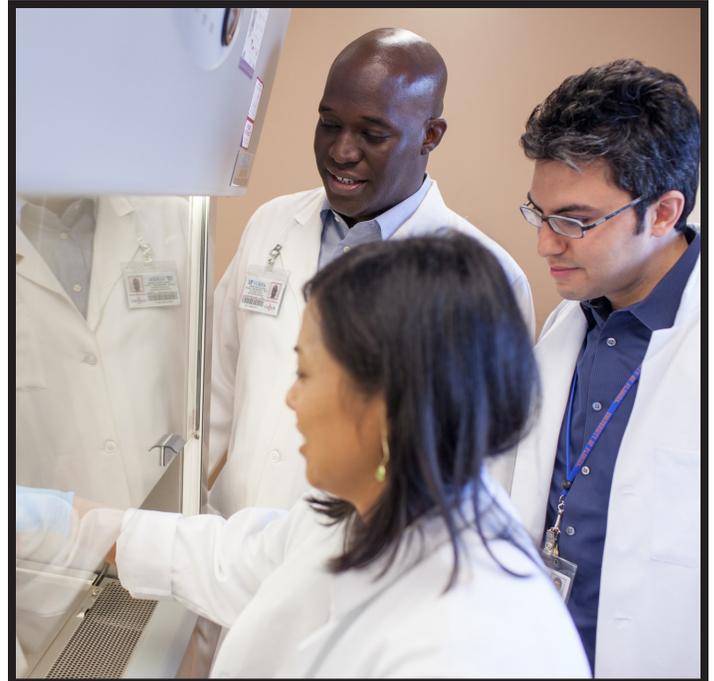
### Objectives and Tactics

#### 1. Train cancer researchers in basic, translational, clinical, and population sciences research with an emphasis on team science

- a. Successfully administer the interdisciplinary team-based cancer research T32 grant
- b. Develop an NCI T32 application in Pediatric Cancer Immunotherapy, Cancer and Aging, and Cancer Communications
- c. Strengthen IIT Think Tank, to offer mentoring for more early-stage clinical investigators and clinical trainees
- d. Enhance grant writing workshops and mock study sections and create templates to facilitate predoctoral and postdoctoral fellowship applications
- e. Continue to recruit early stage investigators, providing support and mentorship

#### 2. Develop and sustain clinical investigators and physician scientists

- a. Increase the numbers of clinical investigators and provide sufficient and sustained protected time for clinical trial and other study development.
- b. Grow numbers of and support for trainees in research tracts in fellowship and surgical residency ACGME programs with an additional emphasis on increasing diversity



#### 3. Increase the diversity of cancer researchers and leaders through focused recruitment, training, career enhancement and retention

- a. Ensure all UFHCC leaders are up to date on best practices for creating inclusive environments for learning, research and recruitment of members from diverse racial, ethnic, cultural, socioeconomic and sexual orientation backgrounds
- b. Promote enhanced diversity competence among UFHCC members
- c. Enhance outreach and engagement with women and other groups underrepresented in cancer research through campus visits and national research organizations

- d. Increase opportunities and participation of women and minorities in cancer research for early stage investigators through pilot grants including the ACS Institutional Research Grant
- e. Expand collaborations with Florida HBCUs and HSIs to build a statewide diversity postbaccalaureate program and seek funding through the NIGMS R25 mechanism (R25 DPREP Program) and the U54 CaRE<sup>2</sup> Health Equity Center
- f. Develop a URM-focused T32 application
- g. Emphasize pilot and training awards to support ESI who are women or members of groups underrepresented in the cancer research workforce (URG)
- h. Encourage and administratively support new NIH awardees to apply for diversity supplements to support their trainees

**4. Support the Associate Director for Diversity, Equity, and Inclusion in developing and implementing the Plan for Enhancing Diversity**

- a. Meet the diversity goals in new recruits and overall UFHCC membership
- b. Outreach to diverse groups in cancer and STEM organizations

**5. Promote a culture of inclusivity through leadership opportunities, mentorship, networking and sponsorship**

- a. Sponsor early and mid-career women and URG faculty for leadership training
- b. Work across the UF campus to identify and provide leadership opportunities for women and URG members in cancer research
- c. Support a culture of community among women and minority faculty leading to increased recruitment and retention
- d. Develop a curriculum for those who identify leadership as a career goal



# Monitoring Progress towards Goals

The aim of UFHCC is to better understand cancer biology and create new concepts, devices, biomarkers, and therapeutic strategies that can be translated into practice. We seek to develop and apply ideas and evidence that lead to new practice guidelines and public health policies to improve outcomes. We will develop and apply novel concepts to train a highly effective and diverse research workforce.

We have identified key center-wide and goal-specific performance indicators as metrics to assess progress in achieving the strategic plan. The metrics below will be monitored annually to assess our progress toward our goals. This is intended to be a living document and goals and metrics may be adjusted over time to accommodate new opportunities.

## Momentum 2027 Strategic Plan Scorecard

Strategic Pillar	Key Performance Indicator	2022 Baseline	2027 Goal
<b>Conduct Transdisciplinary Research that Leverages Expertise and Initiatives across the University of Florida</b>	NCI funding	\$14M	<b>\$18M</b>
	Total peer-reviewed funding	\$36M	<b>\$45M</b>
	Number of MPI grants	44	<b>55</b>
	Number of Program/complex grants	2	<b>5</b>
	High impact collaborative publications		
	<i>Publications with impact factor &gt;10</i>	111	<b>125</b>
	<i>Inter-institutional publications (% per year)</i>	77%	<b>85%</b>
	<i>Inter-programmatic</i>	17%	<b>20%</b>
	<i>Intra-programmatic</i>	26%	<b>30%</b>
Patents awarded over 5 year period	100	<b>175</b>	
Numbers of new lab/population science faculty		<b>+2-4/year</b>	

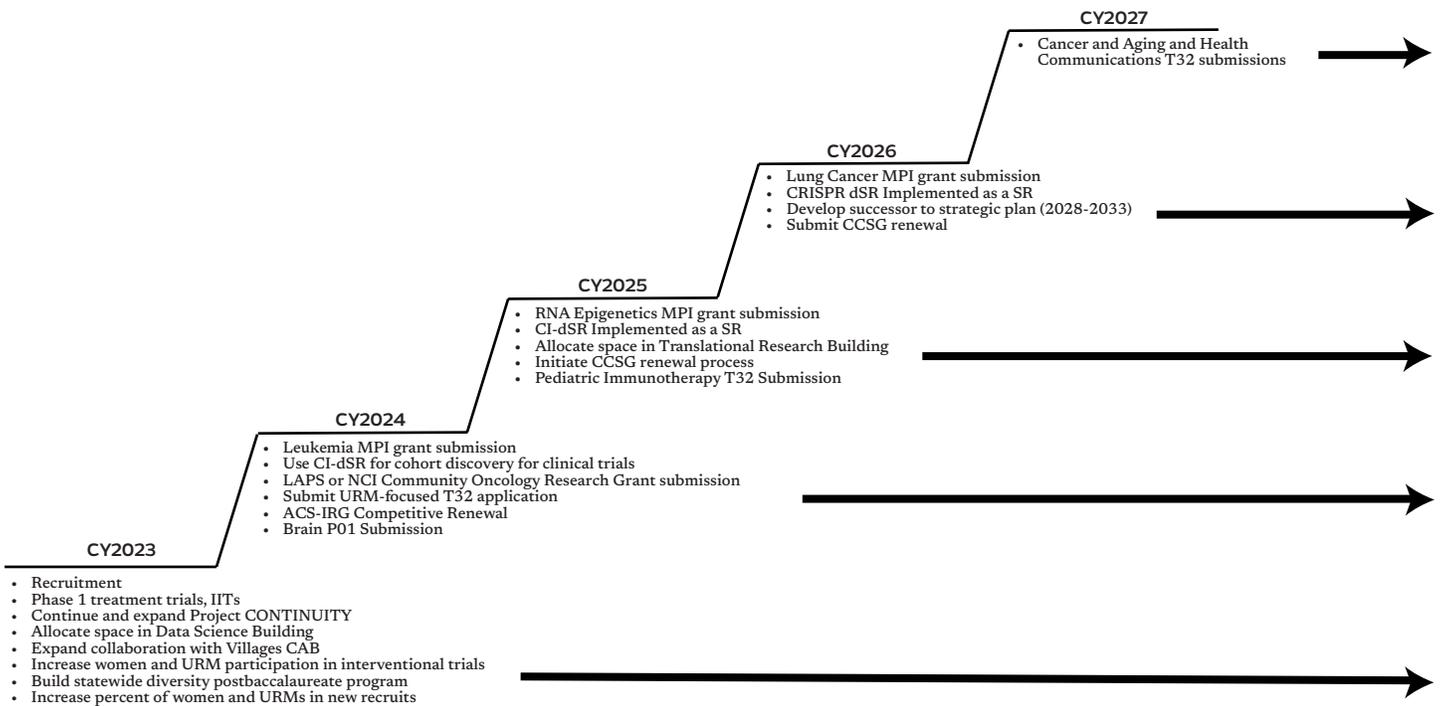
<b>Translate scientific advances to personalized prevention and treatment</b>	New IITs, numbers (over 5 year period)	41	<b>68</b>
	New Clinical Investigator Productivity		
	<i>Trials Written per Investigator (per year)</i>	-	<b>2</b>
	<i>Trials Opened per Investigator (per year)</i>	-	<b>4</b>
	Preclinical Concepts Translated (over 5 year period)	29	<b>53</b>
	Treatment IIT accruals (per year)	176	<b>200</b>
Treatment accruals (per year)	299	<b>450</b>	

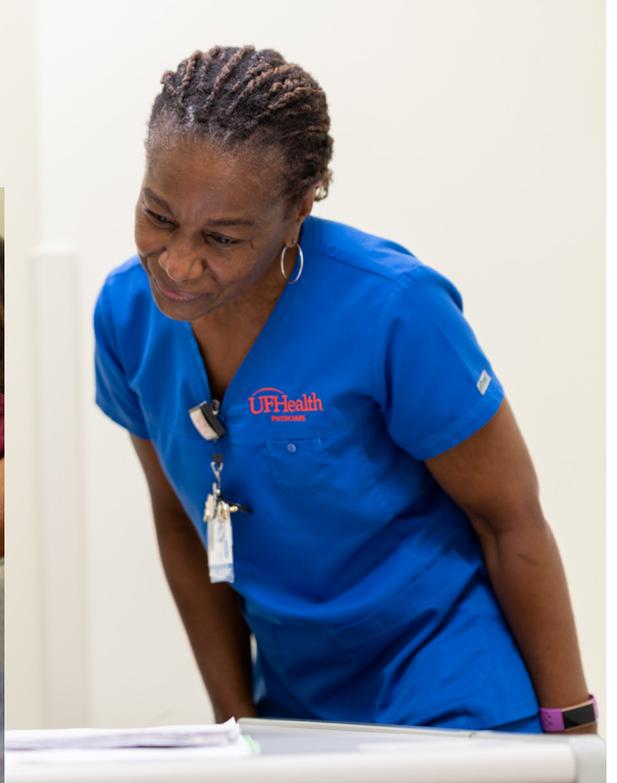
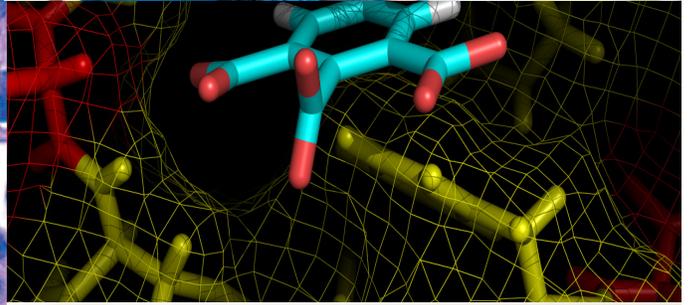
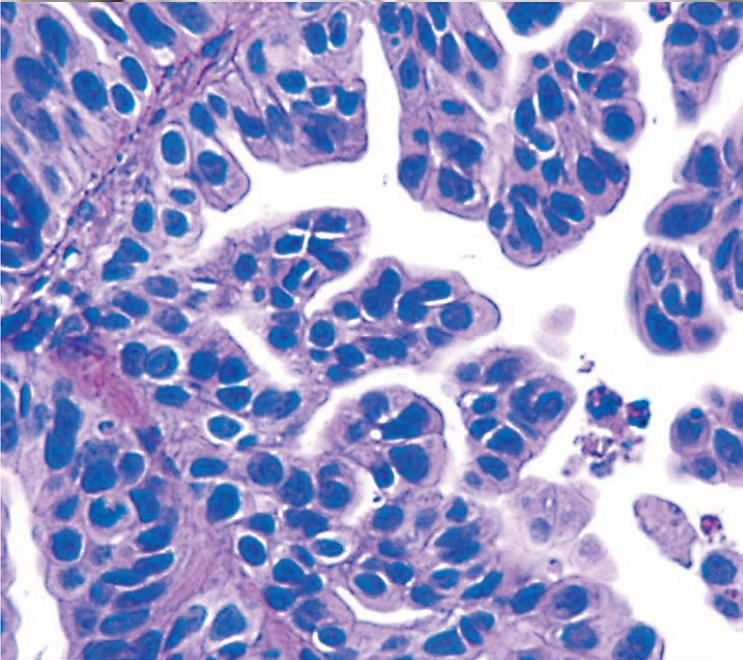
Strategic Pillar	Key Performance Indicator	2022 Baseline	2027 Goal
<b>Translate scientific advances... (cont.)</b>	Numbers of new clinical investigators	-	<b>10</b>
	Participation by women, underrepresented individuals and individuals across the lifespan in treatment trials (% per year)		
	<i>Women</i>	38%	<b>48%</b>
	<i>URMs</i>	11%	<b>15%</b>
	<i>Individuals across the lifespan</i>		
	Individuals <18	25%	<b>30%</b>
Individuals >= 65	58%	<b>64%</b>	

<b>Lessen the Cancer Burden and Reduce Cancer Disparities In North Central Florida And Beyond</b>	Cancers Addressed by Project CONTINUITY	3	<b>5</b>
	Cancers Addressed by All Screening Efforts	5	<b>7</b>
	Patients screened (per year)	327	<b>450</b>
	Rural enrollments in treatment trials (per year)	61	<b>90</b>
	URM enrollments in interventional trials	49%	<b>51%</b>
	Older individual enrollments in interventional trials	58%	<b>64%</b>
	Numbers of patients referred to care from screening events for priority cancers	281	<b>400</b>

<b>Grow prepared and diverse cancer workforce of researchers and leaders</b>	Increase numbers of cancer focused T32s	1	<b>4</b>
	Trainees in K programs/K awards	3	<b>6</b>
	R25 to support UGMs	-	<b>1</b>
	Diversity of membership		
	<i>% Women</i>	35%	<b>40%</b>
	<i>% URGs</i>	9%	<b>11%</b>
	Diversity of Recruits		
	<i>% Women</i>	45%	<b>50%</b>
	<i>% URGs</i>	17%	<b>18%</b>
	Diversity of Trainees		
<i>% URGs</i>	12%	<b>15%</b>	
% Time protected for Clinical investigators	30%-50%	<b>50%</b>	
Trainees in ACGME research tracts supported by UFHCC (over 5 year period)	19	<b>25</b>	

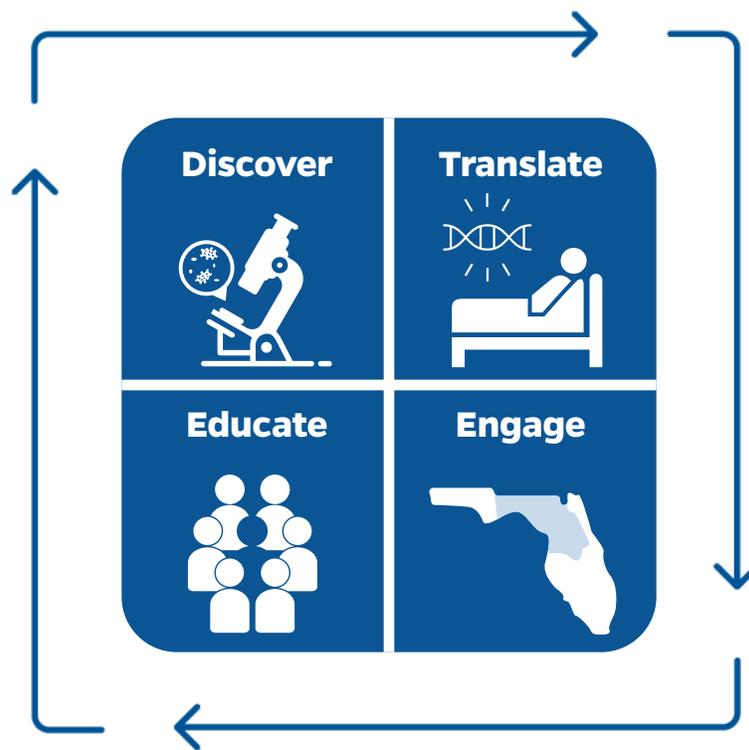
# Timeline towards accomplishing our Goals





# UFHealth

CANCER CENTER



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