

EXECUTIVE OVERVIEW

The Florida Academic Cancer Center Alliance (FACCA), consisting of Moffitt Cancer Center (Moffitt), UF Health Cancer Center (UF Health), and Sylvester Comprehensive Cancer Center at the University of Miami (UM Sylvester), formed in 2014 to build collaborations that expedite innovation in the area of cancer research throughout the State of Florida and maximize state investments in biomedical technology and research.

A primary goal of the program at the time of creation was to provide support for UF Health and UM Sylvester to obtain National Cancer Institute (NCI) designation and for Moffitt to sustain NCI Comprehensive designation. Since the last report, FACCA is proud to report that UF Health Cancer Center obtained NCI designation in June 2023, becoming the 72nd designated Cancer Center and the 3rd in the State of Florida. The NCI recognized UF Health for its outstanding work conducting research in its laboratories, treating patients in its clinics and hospitals, and reaching out to medically underserved communities with innovative prevention strategies. Moffitt successfully renewed its designation as an NCI Comprehensive Cancer Center, achieving its highest rating to date, and begun its 6th grant cycle in 2022. Finally, UM Sylvester continues to develop its laboratory and clinical research efforts as an NCI designated Cancer Center and will submit its Cancer Center Support Grant competitive renewal in September 2023. All three Centers' efforts have resulted in a greater impact to the communities they serve.

Over the past three years, this extraordinary partnership has strengthened its efforts to advance cancer care, research, and education throughout the State of Florida. The foundation of this relationship is engaged collaboration among faculty and staff at the centers. Examples of progress over the last three years include:

- Recognition of UF Health as an NCI designated Cancer Center
- Treatment of 70,331 newly diagnosed patients combined across all three centers
- Accrued 11,196 patients combined to investigator-initiated interventional clinical studies
- Competed for \$118.5 million (M) in active peer-reviewed grant funding across all three centers as of 2023
- Facilitated 37,271 experiences for clinical and scientific trainees
- Published 6,497 peer-reviewed articles across the three centers with 318 unique articles featuring at least two (2) FACCA centers
- Awarded 3 meritorious inter-institutional pilot project grants with a total of 23 awarded since 2015
- Returned \$45.0M in extramural funds, 36 peer-reviewed publications, and 4 clinical studies on a \$2.75M investment in the pilot program by the FACCA centers since inception of the program
- Held four (4) FACCA-wide collaborative retreats – 2 virtual, 2 in person – spurring research collaborations
- Continuous and purposeful collaboration and communication between the three (3) Center Directors
- Monthly virtual meetings between the three (3) Center administrative teams and principal Administrators.

MOFFITT CANCER CENTER

Moffitt's designation by NCI as a Comprehensive Cancer center was officially renewed on February 1, 2022, with the start of year 25 of funding for the Cancer Center Support Grant (CCSG). Moffitt has recently completed an update of its Research Strategic Plan and is developing specific plans for all CCSG components with expert input from its External Advisory Committee to position itself well for its renewal application in January 2026.

Moffitt welcomed Patrick Hwu, MD in November 2020 as its 4th Chief Executive Officer, marking the beginning of an exciting new period in Moffitt's growth and evolution as a Cancer Center as it proactively addresses the needs of Floridians and scientific trends in cancer research. To meet rising CCSG expectations, Moffitt also appointed two new research executive leaders over the last two years. Elsa Flores, PhD was named Associate Center Director, Basic Science, and Brian Gonzalez, PhD was named Associate Center Director, Research Diversity & Workforce Development. Together, the research executive leaders work in harmony to ensure that Moffitt remains an innovative leader at the forefront of cancer research and drives practice, paradigm, and policy changing scientific discovery and translation, bringing tomorrow's treatments to patients today.

Florida’s investment has enabled Moffitt to recruit 31 research faculty at all ranks since 2020, an impressive feat during the height of the COVID-19 pandemic. Of these new recruits, Moffitt was able to promote 4 highly competitive trainees to faculty from its own pool of highly qualified trainees, successfully retaining scientific expertise in Florida, and successfully competed for top-tier scientists against established institutions including:

• Amir Alishahi, MD, PhD, MPH	UNC Eshelman School of Pharmacy	Chapel Hill, NC
• Doratha (Armen) Byrd, PhD, MPH	National Cancer Institute	Rockville, MD
• Tiffany Carson, PhD, MPH	University of Alabama at Birmingham	Birmingham, AL
• Erin George, MD	University of Pennsylvania	Philadelphia, PA
• Ana Gomes, PhD	Weill Cornell Meyer Cancer Center	New York, NY
• Jessica Islam, PhD, MPH	UNC Lineberger Comprehensive Cancer Center	Chapel Hill, NC
• Alexander Jaeger, PhD	MIT Koch Institute for Integrative Cancer Research	Cambridge, MA
• Aleksandra Karolak, PhD	City of Hope Cancer Center	Duarte, CA
• Jacob Kresovich, PhD, MPH	National Institute of Environmental Health Sciences	Raleigh, NC
• Nathan Parker, PhD	MD Anderson Cancer Center	Houston, TX
• Timothy Shaw, PhD	St. Jude Children’s Research Hospital	Memphis, TN

Remarkably, more than 35% of the junior faculty recruited since 2018 have not only set up their laboratories during a pandemic but have obtained their first R01 or equivalent, which is a reflection of the high-quality mentoring and supportive research environments at Moffitt.

Investment in new faculty includes attractive start-up funding for them to jump start and supplement their research as a necessary and foundational step towards competing for extramural funding, especially from the NCI. These funds allow faculty to develop preliminary data and generate ideas necessary to obtain grant funding, develop clinical trials, and apply new knowledge to provide outstanding patient care. These funds are even more critical to success when establishing and growing areas at the forefront of innovation in cancer research such as machine learning (mentioned in the 2020 report), bioengineering, metabolism, immuno-oncology, and interception science across all five of Moffitt’s research programs. Notable recruits to leadership positions in these broad areas include:

• Antonio Amelio, PhD	Vice Chair for Research, Department of Head & Neck Oncology
• Dorina Avram, PhD	Vice Chair, Department of Immunology
• Gina DeNicola, PhD	Leader, Metabolism Program (Developing)
• Joseph Kissil, PhD	Leader, Cancer Biology & Evolution Program & Chair, Department of Molecular Oncology
• Greg Sawyer, PhD	Chair, Department of Bioengineering
• Matthew Schabath, PhD	Co-Leader, Cancer Epidemiology Program
• Damon Vidrine, DrPh	Chair, Department of Health Outcomes & Behavior
• Xuefeng Wang, PhD	Vice Chair, Department of Biostatistics & Bioinformatics
• Kosj Yamoah, MD, PhD	Chair, Department of Radiation Oncology

UF HEALTH CANCER CENTER

Through the funding provided from the State of Florida over the past three years, UF Health has made significant strides toward its goal of achieving NCI designation. Tangible results have been achieved to include the submission of the Center’s CCSG A1 application from UF to NCI for designation in 2022; nationally ranked by US News & World Report for both adult and pediatric cancer hospitals, and ranked among the nation’s best in five specialties; re-accreditation by the Commission on Cancer (CoC) in August 2022; initial accreditation for the UF Health Rectal Cancer Program through the CoC’s National Accreditation Program for Rectal Cancer; and, in November 2020, recertification through the American Society of Clinical Oncology’s (ASCO) Quality Oncology Practice Initiative (QOPI). The funding provided to UF Health has enabled the Center to improve treatment options for patients and achieve research excellence providing patients access to higher levels of interdisciplinary discoveries to improve cancer treatments at the state’s most comprehensive academic medical center. UF is internationally recognized for its research expertise and clinical care in bone marrow transplant, brain tumors, leukemia and lymphoma, pancreatic, prostate, and sarcoma cancers. UF Health continues

pioneering work in areas such as microbiota research applications and immunotherapy treatment for cancers, bringing together 340 researchers from 77 Departments in 11 of the 16 UF Colleges.

Continued faculty recruitment is an ongoing initiative and was recognized as essential for UF Health’s resubmission application to NCI in 2022. During the period of 2020–2022, state funding has been a critical resource in the successful recruitment of a total of 28 strategic faculty recruits from 14 states, including 18 established NCI-Designated Cancer Centers, to the cancer center that involved the collaboration and coordination between the cancer center and 16 departments in 7 colleges. Among the recent recruits include:

• Zeina Al-Mansour, MD	University of Massachusetts	Amherst, MA
• Dejana Braithwaite, PhD	Georgetown University	Washington, DC
• Jason Butler, PhD	Hackensack Meridian School of Medicine	Nutley, NJ
• Lakeshia Cousin, PhD, APRN, AGPCNP-BC	Moffitt Cancer Center	Tampa, FL
• Mansi Dalal, MD	University of Florida	Gainesville, FL
• Erin Dean, MD	Moffitt Cancer Center	Tampa, FL
• Bently Doonan, MD	University of Florida	Gainesville, FL
• Lynn El Haddad, PhD	MD Anderson Cancer Center	Houston, TX
• Kiley Graim, PhD	Princeton University	Princeton, NJ
• Juan Guan, PhD	University of California San Francisco	San Francisco, CA
• Mei He, PhD	University of Kansas	Lawrence, KA
• Georges Khalil, PhD	MD Anderson Cancer Center	Houston, TX
• John Ligon, MD	National Cancer Institute	Bethesda, MD
• Hung Luu, MD, PhD	University of Pittsburgh	Pittsburgh, PA
• Zhe Ma, PhD	University of North Carolina at Chapel Hill	Chapel Hill, NC
• Carrie Miller, PhD, MPH	Virginia Commonwealth University	Richmond, VA
• Jordan Milner, MD	New York Medical College	Valhalla, NY
• Erin Mobley, PhD, MPH	University of Southern California	Los Angeles, CA
• Oluwadamilola Oladeru, MD	Mass General Brigham	Boston, MA
• Luisel Ricks-Santi, PhD	Hampton University	Hampton, VA
• Sherise Rogers, MD, MPH	Ohio State University	Columbus, OH
• Ilyas Sahin, MD	Brown University	Providence, RI
• Hyung-Suk (Alex) Yoon, PhD, MPH	Vanderbilt University Medical Center	Nashville, TN
• Yong Zeng, PhD	University of Kansas	Lawrence, KA

Of the 28 recruits to UF Health in the past three years, 7 (25%) have been successful in obtaining peer-reviewed funding, since arriving to UF. This includes 6 awards from NCI, 2 awards from the National Institutes of Health (NIH), and 1 award from other peer-review sponsors that total \$8,444,510 (total costs, all years) to UF. Through 2022, the recruits have expensed \$2,945,607 from UF Health recruitment support, generating a ROI of 2.9:1.

UM SYLVESTER COMPREHENSIVE CANCER CENTER

Sylvester Comprehensive Cancer Center at the University of Miami (UM Sylvester), South Florida’s only academic Cancer Center in South Florida, became the 71st NCI designated Cancer Center in July 2019. In 2022, UM Sylvester was ranked in the Top 50 in the 2022-2023 U.S. News & World Report (USNWR) Best Hospitals rankings for cancer, the first time being ranked in the center’s history. UM Sylvester’s catchment area remains a primary driver of the center’s agenda, impacting the focus of its research, and consisting of a four-county region (Miami-Dade, Broward, Monroe, and Palm Beach) spanning more than 10,000 square miles. With nearly 22 million residents in the state of Florida, more than 6.2 million comprise UM Sylvester’s unique catchment area of diverse ancestry, racial/ethnic identities, socioeconomic and cultural backgrounds. UM Sylvester’s catchment area is poorer, older, and has a greater percentage of Hispanic and Black residents compared to the US. Eighty-five percent of UM Sylvester’s patients call this four-county area home, and more than half of the catchment area

residents speak a language other than English at home. The racial and ethnic heterogeneity in this area presents UM Sylvester's investigators with unique and important opportunities to advance cancer research. Implicit in UM Sylvester's mission is a deep commitment to achieve health equity in the context of the disparities prevalent in its catchment area.

UM Sylvester's Office of Outreach and Engagement and its team of 11 community health workers routinely collaborate with community residents to understand emerging concerns and close gaps in cancer education and care through targeted outreach, primarily via UM Sylvester's Game Changer Vehicles. These mobile clinics travel and work on the ground in the communities UM Sylvester serves, offering testing, screening, and education. UM Sylvester's Community Advisory Committee (CAC) informs this engagement and consists of community stakeholders including leaders of local organizations, Federally Qualified Health Centers (FQHCs), faith-based organizations, and civic and advocacy groups that serve key population sub-groups, such as the Miccosukee Tribe, and individuals either treated at UM Sylvester or its partner, Jackson Health System. The CAC formally reports to the UM Sylvester Director, Stephen D. Nimer, MD, to ensure that community input is heard at the highest levels of leadership and can appropriately inform strategic planning and investment.

For 11 years, Dr. Nimer has built an impressive core of cancer researchers and health professionals to best position UM Sylvester as a national leader in cancer research, with teams of outstanding scientists who conduct impactful, collaborative, and transdisciplinary research. UM Sylvester's 391 cancer researchers (as of 12/31/22), span 39 academic disciplines and four UM Sylvester Research Programs: Cancer Control (CC), Cancer Epigenetics (CE), Tumor Biology (TB), and UM Sylvester's newest program, Translational & Clinical Oncology (TCO), which was launched in 2022. TCO is building on UM Sylvester's translational capabilities, ushering basic science discoveries into clinical research and clinical trial development. The four programs' various interests, perspectives, and expertise advance UM Sylvester's competency in addressing the cancer problem and responding to unique challenges within South Florida.

With the support from the State of Florida appropriation, UM Sylvester has invested heavily in its basic, clinical, translational, and population-based research and research infrastructure, bringing new scientists and expert leadership to develop its Research Programs, shared resources, and clinical research services. Due to investments in clinical research infrastructure, a multidisciplinary team approach, and attention to best practices for enrollment of diverse patients on clinical trials, the NCI invited UM Sylvester to become an affiliated organization of its Experimental Therapeutics Clinical Trials Network (ETCTN) program, recognizing UM Sylvester's accruals of diverse populations to clinical trials and requesting its engagement to educate other centers on best practices. Investments in education and training and team science have also yielded important funding milestones including four cancer relevant T32 training grants funded during the reporting period totaling \$1.5M in annual direct costs and UM Sylvester's second five-year multi-project \$5 million Leukemia & Lymphoma Specialized Center of Research Program (LLS SCOR) grant, awarded in 2022, on the epigenetics of myeloid malignancies, one of only two grants awarded in the US. This award supports eight CE program members, two outstanding collaborators from Memorial Sloan Kettering Cancer Center (MSKCC), and one from Brigham and Women's Hospital. UM Sylvester researchers and a collaborator at Columbia University were awarded an NCI P01 grant focused on esophageal adenocarcinoma, which began in July 2022. Finally, UM Sylvester has continued to invest in the FACCA Pilot Funding Program with Moffitt and UF, yielding publications and peer-reviewed funding as outlined below.

Due to the support of the State of Florida Appropriation, designation as an NCI designated cancer center, and the rising reputation of the quality of clinical care and research, UM Sylvester has successfully attracted exceptional physicians and investigators from premier institutions over the past three years. To further strengthen UM Sylvester's impact on cancer research and its community, the recruitment of key leaders has been a consistent priority. Among these efforts, in 2022, Dr. Antonio Iavarone was recruited as Deputy Director, bringing his decades-long dedication to finding better treatments for glioblastoma and other aggressive brain tumors to Florida. As Deputy Director, Dr. Iavarone provides strategic guidance, financial oversight, recruitment support, and leadership as the critical second-in-command.

Over the reporting period, state appropriations supported the recruitment of 32 new faculty. Each new recruit brings expertise, grant funding, and/or clinical trials to the State of Florida.

- Greg Azzam, MD, PhD
- Defne Bayik-Watson, PhD
- Diana Byrnes, MD
- Ruben Carmona, MD, MAS, MBA
- Zheng Chen, PhD
- Emiliano Cocco, PhD
- Tracy Crane, PhD
- Benjamin Diamond, MD
- Zhenfeng Duan, MD
- Yengbo Feng, PhD
- Julie Grossman, MD
- Antonio Iavarone, MD
- Emily Jonczak, MD
- Marcella Kaddoura, MD
- Dickran Kazandjian, MD
- Carl Ola Landgren, MD, PhD
- Anna Lasorella, MD
- Chiara La Tessa, PhD
- David Lombard, MD, PhD
- Francesco Maura, MD
- Oliver McDonald, MD, PhD
- Patricia Moreno, PhD
- Viraj Sanghvi, PhD
- Devinder Singh, MD
- Gerald Soff, MD
- Justin Taylor, MD
- Thomas Temple, MD
- Kevin Van der Jeught, PhD
- Sangeetha Venugopal, MD
- Xiao (Joan) Wang, MD, PhD
- Dionysios (Dennis) Watson, MD, PhD
- Erik Williams, MD

- Jackson Memorial Hospital
- Cleveland Clinic
- University of Miami | Jackson Memorial Hospital
- University of Pennsylvania
- University of Miami | Miller School of Medicine
- Memorial Sloan Kettering Cancer Center
- University of Arizona
- Memorial Sloan Kettering Cancer Center
- University of California Los Angeles
- Reaction Biology Corporation
- University of Miami | Jackson Memorial Hospital
- Columbia University
- University of Miami
- Mayo Clinic
- National Institute of Health
- Memorial Sloan Kettering Cancer Center
- Columbia University
- University of Trento
- University of Michigan
- Memorial Sloan Kettering Cancer Center
- Vanderbilt University
- Northwestern University
- Memorial Sloan Kettering Cancer Center
- Anne Arundel Medical Center
- Memorial Sloan Kettering Cancer Center
- Memorial Sloan Kettering Cancer Center
- Mercy Hospital
- Indiana University
- MD Anderson Cancer Center
- MD Anderson Cancer Center
- Cleveland Clinic
- University of California San Francisco

- Miami, FL
- Cleveland, OH
- Miami, FL
- Philadelphia, PA
- Miami, FL
- New York, NY
- Tucson, AZ
- New York, NY
- Los Angeles, CA
- Malven, PA
- Miami, FL
- New York, NY
- Miami, FL
- Rochester, MN
- Bethesda, MD
- New York, NY
- New York, NY
- Trento, Italy
- Ann Arbor, MI
- New York, NY
- Nashville, TN
- Chicago, IL
- New York, NY
- Annapolis, MD
- New York, NY
- New York, NY
- Miami, FL
- Indianapolis, IN
- Houston, TX
- Houston, TX
- Cleveland, OH
- San Francisco, CA

UM Sylvester recruitment has greatly strengthened the University’s cancer focus and improved the overall research climate and environment, enabling all UM Sylvester members to conduct more collaborative, multidisciplinary, high-impact research and be more successful at garnering highly competitive, peer-reviewed grant funding resulting in significant growth in UM Sylvester’s overall research portfolio.

THREE YEAR TRENDS

PEER REVIEWED FUNDING

Each of the three centers have increased the amount of cancer related peer-reviewed funding awarded to their organizations between 2020 and 2022. Together, the centers have grown grant funding awarded to Florida based centers by 9.5% from \$108.2M in the last report to \$118.5M in 2022, primarily from sponsors such as the NCI and other NIH institutes (**Fig. 1**, next page).

To provide broader context, of the \$74.1M in grants awarded to organizations in Florida from the NCI in 2022 (the most recently completed fiscal year), **75%** of the funds were awarded to current Casey DeSantis Cancer Research Program members (**Fig. 2**, next page). These awards fund 166 research projects across the three centers and demonstrates significant leadership in conducting cancer research in the State of Florida.

Despite a 5.6% increase in NCI funds awarded to institutions across the state over the last three years, Florida holds steady as the 14th highest funded state based on NCI grants. As the nation’s 3rd most populous state, there is still room for improving the grant dollars awarded to the State. The three FACCA institutions are best equipped to further increase cancer related grant funding to the State with the Casey DeSantis Cancer Research Program providing critical support.

Moffitt Cancer Center

In 2022, Moffitt’s overall peer-reviewed awards totaled \$48.2M, which is up 17.8% from the last report. This represents 267 research projects being conducted by Moffitt investigators. Moffitt’s NCI funding is holding steady at a robust \$28.1M with the majority of funding increases coming from other NIH and peer-reviewed sponsors, indicating a healthy, sustainable, and diversified funding portfolio.

UF Health Cancer Center

In 2022, UF Health’s overall peer-reviewed awards totaled \$36.9M, which is up 7.6% from the last report. This represents 199 research projects being conducted by UF Health investigators. Overall, NCI funding awarded to UF Health researchers has increased more than 28% from 2020 to \$14.1M in annual direct costs in 2022, representing 35% of the total peer-reviewed researching being conducted.

UM Sylvester Comprehensive Cancer Center

UM Sylvester’s annual direct cost NCI-funding base has also grown from \$11.6M to \$14.5M between 2020 and 2022, while the total peer-reviewed funding has increased from \$31.0M to \$33.3M. In FY 2022 alone, UM Sylvester investigators were awarded 50 new cancer-related grants and contracts. Of these grants, 21 were received by UM Sylvester faculty leadership. UM Sylvester also reported success with multi-PI grants during the reporting period with award numbers increasing from 46 in 2020 to 64 in 2022, a 39% increase.

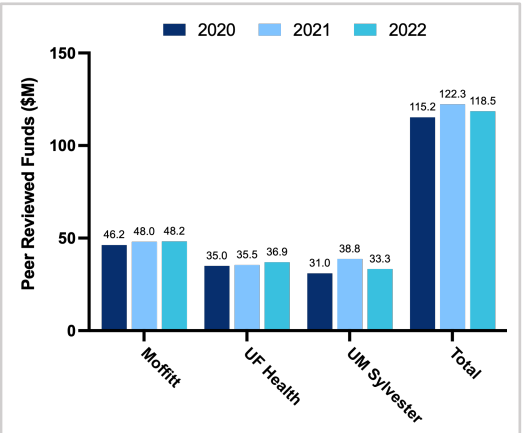


Figure 1. Peer-reviewed funding levels from 2020 – 2022. Peer-reviewed funding is defined as annual direct costs of cancer-related awards to each institution based on sponsors considered by the NCI Office of Cancer Centers as [peer-reviewed](#).

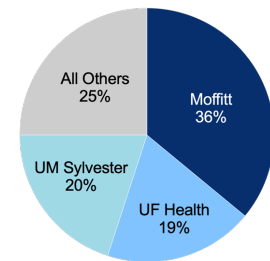


Figure 2. Percent funding to the three cancer centers from the NCI in FY2022. Data is based on NIH RePORT data filtered by most current completed NIH fiscal year (2022) and limited to NCI funding to demonstrate 100% cancer focus across all Florida-based organizations.

PEER-REVIEWED PUBLICATIONS

Investigators at all three cancer centers remain highly productive, having published 6,497 peer-reviewed articles combined between 2020 and 2023 with 9.3% of the articles having at least one collaboration between Moffitt, UF Health, and/or UM Sylvester researchers (see **Collaborations** section for more details).

Moffitt Cancer Center

Researchers at Moffitt published 2,514 peer-reviewed articles over the last three years with 27% appearing in high impact journals such as *Nature*, *Science*, *Cancer Cell*, and the *New England Journal of Medicine*. The average impact factor across this period was 11.484, which has remarkably increased by 60% from the last report. Its membership remains highly collaborative with 26% of articles having intra-programmatic collaborations and 21% having inter-programmatic collaborations.

UF Health Cancer Center

UF Health researchers published a total of 2,246 peer-reviewed articles between 2020 and 2022. Of the total publications, 26% were intra-programmatic, 14% were inter-programmatic and 76% of all publications were inter-institutional that included 181 collaborative publications with researchers at Moffitt and UM Sylvester.

UM Sylvester Comprehensive Cancer Center

UM Sylvester investigators published a total of 1,737 peer-reviewed cancer relevant journal articles from 2020 to 2022; 449 of the publications are published in journals with an impact factor greater than 10 and represent a high degree of collaboration among UM Sylvester’s investigators. The percentage of publications between UM Sylvester Research Programs (inter-programmatic publications) across the three-year period was 19% while

collaboration within research programs (intra-programmatic publications) was 26%. Inter-institutional (other NCI centers) collaboration accounted for 57% of the articles.

REPORTABLE CASES & INTERVENTIONAL TRIALS

Over the last three years, the FACCA centers have served 70,331 new patients (analytic registry cases) combined (Fig. 4), effectively serving 18.8% of all reported new cancer cases in the State of Florida during this time period. Moreover, the three centers combined have accrued 11,196 patients to investigator-initiated interventional clinical trials, representing 15.9% of new registry cases (Fig. 5).

Moffitt Cancer Center

Moffitt primarily serves Floridians with almost 97% of its patients coming from all 67 counties in the state and is reflected in the 27,005 cumulative new analytic cases reported since 2020, representing 7.2% of analytic cases reported statewide. Further, the demand for care at Moffitt reflects the numerous opportunities to participate in cutting edge clinical studies and experience the resulting superior outcomes. As such, Moffitt accrued 3,848 individuals to investigator-initiated interventional studies since the last report, which encompassed protocols of all types including treatment, screening, and prevention. Continuing Moffitt's leadership in immuno-oncology, Moffitt has treated 460 patients with CAR T therapy over the last three years with a 44.2% year over year growth rate. Moffitt also continues to grow its reach and provided care for 10,364 admissions; 598,326 outpatient visits; 12,848 surgeries; and 27,203 new patients (non-analytic + analytic cases) in the most recently completed fiscal year (FY22).

UF Health Cancer Center

Between 2020 and 2022, UF Health saw 27,043 new patients (analytic registry cases) and 4,148 (15.3%) enrolled onto investigator-initiated interventional clinical trials. In 2022, there were 42 open UFHCC interventional IITs, 135 open interventional studies that were registered in CTRP, and 164 actively accruing interventional protocols of all types, particularly treatment, screening and supportive care.

UM Sylvester Comprehensive Cancer Center

UM Sylvester treated a cumulative total of 16,283 new cancer patients (analytic cases) between 2020 and 2022. The patients accrued to investigator-initiated interventional trials (3,200¹) during this time represent 19.7% of UM Sylvester's newly diagnosed patients and reflect the racial and ethnic diversity of its catchment area.

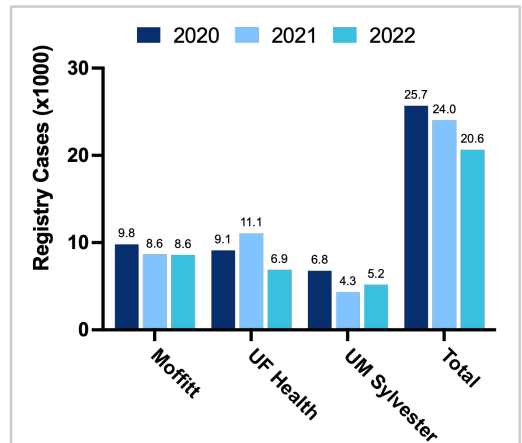


Figure 4. Reportable registry cases. Data derived from center specific cancer registries. Note that the legend year represents the year reported to state as part of FACCA's annual allocation reporting process. Complete FCDS data is 2 years behind reported calendar year.

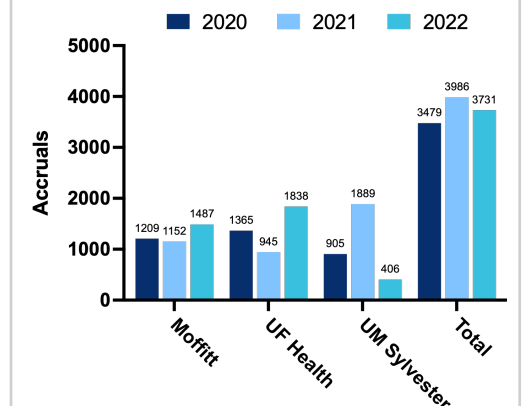


Figure 5. Accrual to investigator-initiated interventional trials by year.

FLORIDA CANCER CENTER COLLABORATIONS

FACCA PILOT PROJECTS

With the onset of the COVID-19 pandemic and consequent reduction in research activities across the state, the three centers agreed to suspend the FACCA Pilot Project Program and did not award any pilot funds in 2020 or 2021. With the lifting of pandemic restrictions and stabilization of the scientific supply chain, three (3) highly meritorious proposals were selected for funding in 2022 (Table 1, next page).

Since its inception in 2015, the three centers have cumulatively invested \$2.75M and have awarded 23 collaborative pilot grants to 60 researchers across the three cancer centers. These investigators have been highly productive, remarkably returning \$45.0M in extramural funding with 79% of awards stemming from peer-

¹ Between 2021 and 2022 reporting periods were adjusted to meet State requirements.

reviewed sponsors. Further, the pilot awards have resulted in 36 peer-reviewed publications, 4 clinical studies, 1 invention disclosure, 2 patent applications, and 1 awarded patent. A summary of individual center return on investment is provided below. See **Appendix** for detailed outcome information for each award.

Table 1. Pilot program awardees for the 2022 cycle.

Award Number	Principal Investigators	Project Title
FACCA-2022-01	Coghill, Anna (Moffitt) O'Neil, Daniel (UM Sylvester)	Establishing a Multi-Site HIV Oncology Research Program in Florida
FACCA-2022-02	Islam, Jessica (Moffitt) Staras, Stephanie (UF Health) Schlumbrecht, Matthew (UM Sylvester)	Trends and Disparities in Cervical Cancer Screening Uptake and Follow-Up Among Women in Florida
FACCA-2022-03	Jain, Michael (Moffitt) Spiegel, Jay (UM Sylvester)	Target Antigen Density and T Cell Exhaustion Impact Outcomes After CAR19 and Post-CAR Relapse

Moffitt Cancer Center

Since 2015, Moffitt invested \$850,000 in funds across 17 pilot awards to 20 Moffitt investigators. Of these awards, 12% were collaborations between Moffitt and UF Health, 35% between Moffitt and UM Sylvester, and 53% were collaborations between all three centers. These pilot awards returned \$29.8M in extramural funding (72% peer-reviewed), 30 peer-reviewed publications, 2 clinical studies (based at Moffitt), 1 invention disclosure (Moffitt), 2 patent applications (1 at Moffitt), and 1 awarded patent. Of the \$29.8M in extramural funding returned, \$18.2M was received by Moffitt as the prime institution, highlighting an incredible 20:1 return on investment.

UF Health Cancer Center

Since 2015, UF Health invested \$850,000 in funds across 17 pilot awards to 17 UF Health investigators. Of these awards, 12% were collaborations between UF Health and Moffitt, 35% between UF Health and UM Sylvester, and 53% were collaborations between all three centers. These pilot awards returned \$43.5M in extramural funding (78% peer-reviewed), 33 peer-reviewed publications, 4 clinical studies (2 based at UF Health), 2 patent applications (1 at UF Health), and 1 awarded patent. Of the \$43.5M in extramural funding returned, \$18.8M was received by UF Health as the prime institution, highlighting an extraordinary 21:1 return on investment.

Between 2020 and 2022, three peer-reviewed grants were awarded based on previously reported FACCA pilots (see **Appendix** for details). These awards were NCI R21CA245858 (PI Markham, UF Health); NCI R37CA251978 (PI Sayour, UF Health); and NCI R01CA256193-01A1 (MPIs Licht, UF Health; Smalley, Moffitt; Harbour, UT Southwestern (formerly UM Sylvester)).

UM Sylvester Comprehensive Cancer Center

Since 2015, UM Sylvester invested \$1.05M in funds across 21 pilot awards to 23 UM Sylvester investigators. Of these awards, 28.5% were collaborations between UM Sylvester and Moffitt, 28.5% between UM Sylvester and UF Health, and 43% were collaborations between all three centers. These pilot awards returned \$43.7M in extramural funding (76% peer-reviewed), 32 peer-reviewed publications, 4 clinical studies (none based at UM Sylvester), 1 invention disclosure, 1 patent application, and 1 awarded patent (to UM Sylvester). Of the \$43.7M in extramural funding returned, \$7.7M was received by UM Sylvester as the prime institution, highlighting a 6:1 return on investment.

UM Sylvester researchers collaborated on nine funded research projects with members of UF Health and Moffitt through the FACCA pilot funding mechanism from 2020-2022. The impact of the pilot funding is ongoing and will grow with time as several years are often needed to realize the outcomes of these projects. See **Appendix** for detailed return on investment for all UM Sylvester funded projects.

EXTRAMURAL COLLABORATIONS

Collaboration between the FACCA centers emanate from, and extend beyond, the pilot program and reflect the collaborative cultures at all three institutions. Over the last three years, the centers have generated 318 unique peer-reviewed publications that have at least one collaboration between the centers and 29 unique articles where all three centers have collaborated. Additionally, investigators from the three institutions have collaborated on extramural peer-reviewed research projects. Center specific collaboration details are described below.

Moffitt Cancer Center

Of the more than 2,500 peer-reviewed articles published by Moffitt investigators, 271 have collaborations with researchers from the two other FACCA centers (Table 2). Of those 267 articles, Moffitt collaborated on 104 articles with UF Health; 138 articles with UM Sylvester; and on 29 articles with investigators from all three centers.

Moffitt researchers collaborate with investigators from UF Health and UM Sylvester on exciting, funded research projects over the last three years. A summary of collaborative awards based at Moffitt that involve FACCA centers as demonstrated through a subcontract are presented in Table 3. For example, Moffitt's Dr. Brian Gonzalez is collaborating with UM Sylvester's Dr. Frank Penedo on two peer-reviewed awards to identify and reduce both disparities in symptom burden and other patient reported outcomes among African American prostate cancer survivors. Moffitt's Dr. Keiran Smalley works with UF Health's Dr. Jonathan Licht in a long-standing collaboration to understand and target the epigenetics of melanoma drug resistance and metastases.

Table 2. Collaborative publications involving Moffitt faculty

Year	Moffitt UF Health	Moffitt UM Sylvester	Moffitt UF Health UM Sylvester	Total
2020	29	36	10	75
2021	41	45	11	97
2022	34	57	8	99
Total	104	138	29	271

Table 3. Moffitt active collaborations on extramural research projects

Moffitt PI	Funding Source	Project Number	Project Title	Collaborating Institute(s)	Collaborating Investigator(s)	Moffitt Funding
Baz, R	NIH NHLBI	R01HL151659	A Multi-omic evaluation of Carfilzomib-related Cardiotoxicity	UF Health	Gong, Y	\$126,615
Cleveland, J	NIH NCI	R01CA249180	Targeted degradation of RNAs by using small molecules	UF Health	Disney, M	\$678,043
Egan, K	FBRP Bankhead Coley	21B09	Biobanking for Breast Cancer Prevention and Disparity Research in Florida	UF Health UM Sylvester	Yaghjyan, L (MPI) Goel, N	\$1,052,078
Gonzalez, B	US Army CDMRP	W81XWH2010126	Identifying and Reducing Disparities in Symptom Burden Among African American Prostate Cancer Survivors	UM Sylvester	Penedo, F	\$866,922
Gonzalez, B	NIH NCI	R01CA242742	Identifying and Reducing Disparities in Patient-Reported Outcomes Among African American Prostate Cancer Survivors	UM Sylvester	Penedo, F	\$1,855,732
Kissil, J	US Army CDMRP	W81XWH2010431	A Chemical Proteomic Strategy for Mapping Codependency Pathways in KRAS-Driven Lung Cancer	UF Health	Parker, C	\$84,644
Kissil, J	NIH NINDS	R01NS117926	Elucidating the Epigenetic Landscape of Neurofibromatosis and Development of Therapeutic Targets	UF Scripps	Pipkin, M	\$1,766,188
Lynch, C	NIH NCI	U01CA244101	Defining Bone Ecosystem Effects on Metastatic Prostate Cancer Evolution and Treatment Response Using an Integrated Mathematical Modeling Approach	UM Sylvester	Burnstein, K	\$2,345,079
Schabath, M	FBRP Bankhead Coley	21B12	Non-Invasive Radiomic Biomarkers to Predict Treatment Response for Immunotherapy of Lung Cancer	UF Health	O'Dell, W	\$1,278,567
Shain, K	FBRP Bankhead Coley	20B03	Development of Novel Cancer Drugs for the Treatment of Multiple Myeloma and Acute Myeloid Leukemia	UF Health	Ostrov, D	\$598,732
Smalley, K	NIH NCI	R01CA256193	Characterization and Targeting of the Epigenetic State Underlying Uveal Melanoma Liver Metastasis	UF Health	Licht, J (MPI)	\$2,863,289
Smalley, K	NIH NCI	R01CA262483	Defining and Targeting Epigenetic Plasticity-Driven Drug Resistance and Immune Escape in Melanoma	UF Health	Licht, J (MPI)	\$2,212,769
TwoRoger, S	US Army CDMRP	W81XWH2010488	A Presurgical Window of Opportunity Trial of the Effect of Aspirin on Immunological Features of Ovarian Tumors	UM Sylvester	Huang, M	\$1,069,464
Vadaparampil, S	NIH NHLBI	OT2HL158287/679 3-02-S005	Florida Community-Engaged Research Alliance Against COVID-19 in Disproportionately Affected Communities (FL-CEAL)	UM Sylvester	Carrasquillo, O	\$259,906
Moffitt Funding Total						\$17,058,028

UF Health Cancer Center

Of the more than 2,200 peer-reviewed articles published by UF Health investigators, 181 have collaborations with researchers from at least one of the two other FACCA centers (**Table 4**). Of these collaborative inter-institutional publications, 27% were with UM Sylvester researchers, 56% were with Moffitt researchers, and 17% involved researchers at all three centers.

Year	UF Health Moffitt	UF Health UM Sylvester	UF Health Moffitt UM Sylvester	Total
2020	29	13	10	52
2021	41	22	11	74
2022	34	13	8	55
Total	104	48	29	181

UF Health investigators collaborated with researchers from Moffitt and UM Sylvester on cutting-edge funded research projects since the last report that developed outside of the FACCA pilot program. A summary of collaborative awards based at UF Health that involve collaborations with FACCA centers as demonstrated through a subcontract are presented in **Table 5**. For example, UF Health’s Dr. Matthew Disney works with Moffitt’s Dr. John Cleveland in a long-standing collaboration to understand and develop methods for targeted degradation of RNAs using small molecules for the treatment of cancer in an R01 research project funded from the NCI. UF Health’s Dr. Janice Krieger is collaborating with UM Sylvester’s Dr. Olveen Carrasquillo on an MPI U01 funded research project from the NCI that is investigating the use of precision recruitment of underrepresented individuals onto clinical trials to promote cancer health equity across Florida populations. Finally, UF Health’s Dr. Walter O’Dell is collaborating with Moffitt’s Dr. Matthew Schabath to develop CT based non-invasive radiomic biomarkers that can predict responses to immunotherapy in patients with lung cancer.

UFHCC PI	Funding Source	Project Number	Project Title	Collaborating Institute(s)	Collaborating Investigator(s)	UF Health Funding
Disney, M	NIH NCI	R01CA249180	Targeted Degradation of RNAs by Using Small Molecules	Moffitt	Cleveland, J	\$2,217,845
Krieger J	NIH NCI	U01CA274970	Precision Clinical Trial Recruitment to Promote Cancer Health Equity Across Florida	UM Sylvester	Carrasquillo, O (MPI)	\$3,474,465
Licht, J	NIH NCI	R01CA256193	Characterization and Targeting of the Epigenetic State Underlying Uveal Melanoma Liver Metastasis	Moffitt	Smalley, K (MPI)	\$1,035,235
Licht, J	NIH NCI	R01CA262483	Defining and Targeting Epigenetic Plasticity-Driven Drug Resistance and Immune Escape in Melanoma	Moffitt	Smalley, K (MPI)	\$1,132,876
O’Dell, W	FBRP Bankhead Coley	21B12	Non-Invasive Radiomic Biomarkers to Predict Treatment Response for Immunotherapy of Lung Cancer	Moffitt	Schabath, M	\$219,388
Ostrov, D	FBRP Bankhead Coley	20B03	Development of Novel Cancer Drugs for the Treatment of Multiple Myeloma and Acute Myeloid Leukemia	Moffitt	Shain, K	\$98,709
Pipkin, M	NIH NINDS	R01NS117926	Elucidating the Epigenetic Landscape of Neurofibromatosis and Development of Therapeutic Targets	Moffitt	Kissil, J	\$182,355
Yaghjian, L	FBRP Bankhead Coley	21B09	Biobanking for Breast Cancer Prevention and Disparity Research in Florida	Moffitt UM Sylvester	Egan, K (MPI) Goel, N	\$286,130
UF Health Funding Total						\$8,647,003

UM Sylvester Comprehensive Cancer Center

During the reporting period, UM Sylvester researchers published a total of 1,737 peer-reviewed publications, of which 194 were with collaborators at Moffitt or UF Health. Of these collaborative inter-institutional publications, 25% were with UF researchers, 60% were with Moffitt researchers, and 15% involved researchers at all three centers. **Table 6** summarizes the publications between 2020 and 2022.

Year	UM Sylvester Moffitt	UM Sylvester UF Health	UM Sylvester UF Health Moffitt	Total
2020	23	13	10	46
2021	42	22	11	75
2022	52	13	8	73
Total	117	48	29	194

UM Sylvester collaborated with researchers from Moffitt and UF Health on several innovative peer-reviewed grant awards that formed within and outside of the FACCA pilot program. A summary of these awards as demonstrated by either an inflowing or outflowing subcontract is presented in **Table 7**. For example, UM Sylvester’s Dr. Nipun Merchant collaborates with Moffitt’s Dr. Jennifer Permut on an R37 NCI-funded research project focused on using radiomics to understand and predict the potential of pre-cancerous pancreatic lesions to become malignant. UM Sylvester’s Dr. Neha Goel is working with Moffitt’s Dr. Kathy Egan and UF Health’s Dr. Lusine Yaghjian to develop a breast cancer biobank for prevention and disparities work in breast oncology in a Bankhead-Coley Cancer Research Program award. Finally, UM Sylvester’s Dr. Alan Pollack is collaborating with UF Health’s Dr. Nancy Mendenhall to conduct a PCORI funded treatment trial that compares outcomes in patients with prostate cancer receiving proton or photon radiation therapy.

Table 7. UM Sylvester active collaborations on extramural research projects						
UM Sylvester PI	Funding Source	Project Number	Project Title	Collaborating Institute(s)	Collaborating Investigator(s)	UM Sylvester Funding
Barredo, J	Pediatric CA Fdn	MCC18613	Phase II Study of Nab-Paclitaxel in Combination with Gemcitabine for Treatment of Recurrent/Refractory Sarcoma in Teenagers and Young Adults	Moffitt	Oesterheld, J	\$145,632
Burnstein, K	NIH NCI	U01CA244101	Defining Bone Ecosystem Effects on Metastatic Prostate Cancer Evolution and Treatment Response Using an Integrated Mathematical Modeling Approach	Moffitt	Lynch, C	\$9,946
Carrasquillo, O	NIH NCI	U01CA274970	Precision Clinical Trial Recruitment to Promote Cancer Health Equity Across Florida	UF Health	Krieger, J (MPI)	\$133,112
Correa, Z	NIH NCI	R01CA256193	Characterization and Targeting of the Epigenetic State Underlying Uveal Melanoma Liver Metastasis	Moffitt	Smalley, K	\$126,659
Dhir, Aditi	Nat Pediatric CA Fdn	MCC20320	Blood-Based Biomarkers for Minimal Residual Detection in Pediatric Sarcomas	Moffitt	Reed, D	\$27,736
Goel, N	FRBP Bankhead Coley	21B09	Biobanking for Breast Cancer Prevention and Disparity Research in Florida	Moffitt UF Health	Egan, K Yaghjian, L	\$86,882
Lemmon, V	Craig H. Neilson	598684	Novel and Potent Compounds that Promote Axon Growth	UF Health	Chen, S	\$19,091
Merchant, N	NIH NCI	R37CA229810	Using Radiogenomics to Noninvasively Predict the Malignant Potential of Intraductal Papillary Mucinous Neoplasms of the Pancreas and Uncover Hidden Biology	Moffitt	Permut, J	\$105,000
Merchant, N	US Army CDMRP	W81XWH2211021	Evaluating Obesity-Mediated Mechanisms of Pancreatic Carcinogenesis in Minority Populations	Moffitt	Permut, J	\$22,800
Penedo, F	US Army CDMRP	W81XWH2010126	Identifying and Reducing Disparities in Symptom Burden Among African American Prostate Cancer Survivors	Moffitt	Gonzalez, B	\$21,273
Penedo, F	NIH NCI	R01CA242742	Identifying and Reducing Disparities in Patient-Reported Outcomes Among African American Prostate Cancer Survivors	Moffitt	Gonzalez, B	\$20,679
Pollack, A	PCORI	NCT03561220	A Prospective Comparative Study of Outcomes with Proton and Photon Radiation in Prostate Cancer (COMPPARE)	UF Health	Mendenhall, N	\$26,683
Zuchner, S Carrasquillo, O	NIH OD	OT2OD026551-S4	South-East Enrollment Center (SEEC)	UF Health	Shenkman, E	\$1,904,952
Zuchner, S Carrasquillo, O	NIH OD	OT2OD026551-S5	South-East Enrollment Center (SEEC)	UF Health	Shenkman, E	\$16,800
UM Sylvester Health Funding Total						\$2,667,245

FACCA COLLABORATIVE MEETINGS

The three centers regularly collaborate through recurring meetings, conferences, and retreats, which facilitates ongoing partnerships and stimulates new ones among the research communities across the centers. This level of collaboration demonstrates state-wide progress in addressing the needs of Florida citizens and develops a destination for medical tourism for cancer patients.

Despite the many restrictions necessitated by the COVID-19 pandemic, the FACCA centers nimbly shifted from in person retreats to virtual retreats with UF Health hosting the 2020 retreat via Zoom. The 2022 retreat was hosted by Moffitt and was held virtually using an innovative platform called Gathertown, which allowed a more in person feel to the conference. With low community spread of COVID-19, the research communities of each center were able to resume in person retreats with the most recent hosted by UM Sylvester in March 2023.

Also related to COVID-19 restrictions and challenges, the three centers agreed to postpone development of the immuno-oncology and epigenetics think tanks proposed at the 2017 Director’s Meeting, which were slated to begin in 2020. With the current focus on resuming in person retreats and on reinvigorating the pilot program, discussions to resume think tank planning are postponed until a later time.

Table 8 illustrates the active work among the centers to ensure opportunities are available to foster inter-institutional collaborations. In addition to the retreats and Director’s meetings, the research administration teams from each center meet monthly to discuss ongoing and emergent items related to FACCA. Final retreat agendas are provided as part of the **Appendix**.

Table 8. FACCA collaborative meetings and retreats			
Retreat	Date	Location	Organizing Center
2020 Annual FACCA Retreat	October 28 – 29, 2020	Virtual	UF Health
2022 Annual FACCA Retreat	January 18 – 19, 2022	Virtual	Moffitt
2023 Annual FACCA Retreat	March 27 – 28, 2023	Miami, FL	UM Sylvester
2023 Inaugural Hematopoiesis Meeting	May 19, 2023	Tampa, FL	Moffitt
Director’s Meetings			
Director’s Call	May 25, 2020	Virtual	
Director’s Call	August 25, 2020	Virtual	
Director’s Call	December, 2020	Virtual	
Director’s Call	February 12, 2021	Virtual	
Director’s Call	November 22, 2021	Virtual	
Director’s Meeting	October 2, 2022	Kansas City, MO	
Director’s Call	January 24, 2023	Virtual	

SUMMARY

Over the last three years the people of the State of Florida, as well as each Center, have benefitted from the Casey DeSantis Cancer Research Program, which has provided vital resources for meeting the program’s purpose of achieving and maintaining three NCI designated centers, most notably the designation of UF Health in 2023. As demonstrated here, the program has also importantly improved scientific collaboration between the centers to benefit the state through leveraging strengths at each center to maximize impact, as exemplified by the Florida Pancreatic Initiative. Over the next three years, momentum is expected to continue as each Center continues to build upon its success bringing the best and brightest to Florida to lead the nation in cancer research to benefit its citizens.

APPENDIX

FACCA Pilot Program Return on Investment by Project

Award Number Project Period	Principle Investigators	Institutions	Amount	Project Title
FACCA-2015-01 7/13/15-7/12/17	Egan, K Yaghjian, L	Moffitt UF Health	\$100,000	Gut microflora and estrogens: a new paradigm for breast cancer risk reduction
<p>Darville LNF, Cline JK, Rozmeski C, Martinez YC, Rich S, Eschrich SA, Egan KM, Yaghjian L, Koomen JM. LC-HRMS of derivatized urinary estrogens and estrogen metabolites in postmenopausal women. <i>J Chromatogr B Analyt Technol Biomed Life Sci.</i> 2020 Oct 1;1154:122288. doi: 10.1016/j.jchromb.2020.122288. Epub 2020 Jul 29. PMID: 32769047.</p> <p>Yaghjian L, Mai V, Wang X, Ukhanova M, Tagliamonte M, Martinez YC, Rich SN, Egan KM. Gut microbiome, body weight, and mammographic breast density in healthy postmenopausal women. <i>Cancer Causes Control.</i> 2021 Jul;32(7):681-692 PMID:33772705</p> <p>FBRP/Bankhead Coley 21C09 (PI: Egan): <i>“Biobanking for Breast Cancer Prevention and Disparity Research in Florida”</i> (2021-2022); \$1,327,120</p>				
FACCA-2015-02 7/13/15-7/1/17	Lynch, C Daaka, Y Burnstein, K	Moffitt UF Health UM Sylvester	\$150,000	Role of GPCR-Androgen receptor cross talk in metastatic castration resistant prostate cancer
<p>Zhao N, Peacock SO, Lo CH, Heidman LM, Rice MA, Fahrenholtz CD, Greene AM, Magani F, Copello VA, Martinez MJ, Zhang Y, Daaka Y, Lynch CC, Burnstein KL. Arginine vasopressin receptor 1a is a therapeutic target for castration-resistant prostate cancer. <i>Sci Transl Med.</i> 2019 Jun 26;11(498):eaaw4636. doi: 10.1126/scitranslmed.aaw4636. PMID: 31243151.</p> <p>US Dept of Veteran Affairs I01BX002773 (PI: Burnstein): <i>“A Novel Drug Target for Aggressive Prostate Cancer”</i> (2018-2021); \$996,040</p> <p>10,231,952 (Inventor: Burnstein) <i>“Use of Arginine Vassopressin Receptor Antagonists for the Treatment of Prostate Cancer”</i></p>				
FACCA-2015-03 7/13/15-7/1/17	O’Dell, W Takita, C	UF Health UM Sylvester	\$100,000	Modeling the patterns of breast cancer early metastases
<p>O’Dell W, et al, Projected Clinical Benefit of Surveillance Imaging for Early Detection and Treatment of Breast Cancer Metastases, <i>Breast J</i>, 2019</p>				
FACCA-2015-04 7/13/15-7/13/17	Permeth, J Malafa, M Trevino, J Merchant, N	Moffitt Moffitt UF Health UM Sylvester	\$150,000	The Florida Pancreas Cancer Collaborative: A partnership dedicated to the prevention and early detection of pancreatic cancer
<p>Permeth, J et al Partnering to Advance Early Detection and Prevention Efforts for Pancreatic Cancer: The Florida Pancreas Collaborative, <i>Future Oncol</i> 2016 PMID: 26863203</p> <p>Permeth, J et al, Combining Radiomic Features with a miRNA Classifier May Improve Prediction of Malignant pathology for Pancreatic Intraductal Papillary Mucinous Neoplasms, <i>Oncotarget</i>, 2016, PMID: 27589689</p> <p>Permeth, J et al, A Pilot Study of Radiologic Measures of Abdominal Adiposity: Weighty Contributors to Early Pancreatic Carcinogenesis Worth Evaluating?, <i>Cancer Biol Med</i>, 2017. PMID: 28443205</p> <p>Permeth, J et al, Linc-ing Circulating Long Non-Coding RNAs to the Diagnosis and Malignant Prediction of Intraductal Papillary Mucinous Neoplasms of the Pancreas, <i>Sci Rep</i>, 2017. PMID: 28874676</p> <p>Permeth, J, et al, Racial and Ethnic Disparities in a State-Wide Registry of patients with Pancreatic Cancer and an Exploratory Investigation of Cancer Cachexia as a Contributor to Observed Inequities, <i>Cancer Med</i>, 2019. PMID: 31074202</p> <p>Riner, A, et al, Disparities in Pancreatic Ductal Adenocarcinoma – The Significance of Hispanic Ethnicity, Subgroup Analysis, and Treatment Facility on Clinical Outcomes, <i>Cancer Med</i>, 2020. PMID: 32285629</p> <p>Gerber MH, et al, Local and Systemic Cytokine Profiling for Pancreatic Ductal Adenocarcinoma to Study Cancer Cachexia in an Era of Precision Medicine. <i>Int J Mol Sci.</i> 2018. PMID: 30513792</p> <p>Permeth, J, et al, The Florida Pancreas Collaborative Next-Generation Biobank: Infrastructure to Reduce Disparities and Improve Survival for a Diverse Cohort of Patients with Pancreatic Cancer. <i>Cancers (Basel).</i> 2021. PMID: 33671939</p> <p>Permeth, J, et al, A pilot study to troubleshoot quality control metrics when assessing circulating miRNA expression data reproducibility across study sites <i>Cancer Biomark.</i> 2022;33(4):467-478. PMID: 35491771</p> <p>FBRP/James & Esther King 8JK02 (MPIs: Permeth/Trevino): <i>“The Florida Pancreas Collaborative next generation biobank – reducing health disparities and improving survival in pancreatic cancer”</i> (2018-2021); \$1,360,857</p> <p>NIH/NCI R38CA229810 (MPIs: Permeth/Jeong): <i>“Using Radiogenomics to Noninvasively Predict the Malignant Potential of Intraductal Papillary. Mucinous Neoplasms of the Pancreas and Uncover Hidden Biology”</i> (2019-2024); \$3,374,914</p>				

NIH/NCI R01CA263575 (MPIs: Malafa/Batra): “Novel Therapy to Inhibit IPMN Progression” (2022-2027); \$3,363,183				
US Army/CDMRP W81XWH-22-1-1021 & W81XWH-22-1-1022 (MPIs: Permut/Fleming): “Evaluating Obesity-Mediated Mechanisms of Pancreatic Carcinogenesis in Minority Populations” (2022-2025); \$803,395; \$431,527				
FACCA-2016-01 10/17/16-10/16/17	Chellappan, K Law, B	Moffitt UF Health	\$100,000	Targeting mitotic functions of TBK1 and Cdk2 to combat cancer
Law, M., Ferreira, R., Davis, B., Higgins, P., Kim, J., Castellano, R., Chen, S., Luesch, H., and Law, B., 2016, CUB domain-containing protein 1 and the epidermal growth factor receptor cooperate to induce cell detachment, Breast Cancer Research. PMID: 2749537 Ferreira, R., Wang, M., Law, M., Davis, B., Bartley, A., Higgins, P., Kilberg, M., Santostefano, K., Terada, N., Heldermon, C., Castellano, R., and Law, B., 2017, Disulfide bond disrupting agents activate the unfolded protein response in EGFR- and HER2-positive breast tumor cells, Oncotarget, 8, 28971-28989; PMID: 28423644 Disclosure (Inventor: Law) “Reduced NSC43067”				
FACCA-2016-02 10/17/16 – 10/16/17	Huang, S Xu, M	UF Health UM Sylvester	\$100,000	The role of HoxBlinc INCRA in NPM1 mutation-mediated pathogens of myeloid malignancies
Pan F, et al, Tet2 Loss Leads to Hypermutagenicity in Haematopoietic Stem/Progenitor Cells, Nat Commun, 2017; PMID: 28440315 Luo H, et al, CTCF Boundary Remodels Chromatin Domain and Drives Aberrant HOX Gene Transcription in Acute Myeloid Leukemia, Blood, 2018; PMID: 29760161 NIH/NHLBI (MPIs: Xu/Huang): “Role of lincRNAs in HSC Function and Leukemogenesis” (2018-2019); \$557,193				
FACCA-2016-03 9/1/16 – 8/31/17	Renne, R Mesri, E	UF Health UM Sylvester	\$100,000	Oncogenic role of KSHV micro RNAs in cell and animal models of Kaposi’s sarcoma
ROI Pending				
FACCA-2016-04 7/1/16 – 12/30/17	List, A Wei, S Hudson, M Lippman, B	Moffitt Moffitt UM Sylvester UM Sylvester	\$100,000	RAGE signaling through the inflammasome: Novel combined inflammatory therapeutic targets in cancer
Patent Application (Inventors: List/Wei) “Creating tetra-chimeric protein vCD33-vRAGE-linker-vCD33”				
FACCA-2016-05 9/1/16 – 8/31/17	Smalley, K Licht, J Harbour, W	Moffitt UF Health UM Sylvester	\$150,000	Defining and targeting the aberrant chromatin function in uveal melanoma
Faião-Flores F, Emmons MF, Durante MA, Kinose F, Saha B, Fang B, Koomen JM, Chellappan SP, Maria-Engler SS, Rix U, Licht JD, Harbour JW, Smalley KSM. HDAC Inhibition Enhances the <i>In Vivo</i> Efficacy of MEK Inhibitor Therapy in Uveal Melanoma. Clin Cancer Res. 2019 Sep 15;25(18):5686-5701. doi: 10.1158/1078-0432.CCR-18-3382. Epub 2019 Jun 21. PMID: 31227503; PMCID: PMC6744978. Gonçalves J, et al, Decitabine limits escape from MEK inhibition in uveal melanoma. Pigment Cell Melanoma Res. 2020 May;33(3):507-514; PMID: 31758842 Sriramareddy SN, Faião-Flores F, Emmons MF, Saha B, Chellappan S, Wyatt C, Smalley I, Licht JD, Durante MA, Harbour JW, Smalley KSM. HDAC11 activity contributes to MEK inhibitor escape in uveal melanoma. Cancer Gene Ther. 2022 Dec;29(12):1840-1846; PMID: 35332245 Kaler CJ, Dollar JJ, Cruz AM, Kuznetsoff JN, Sanchez MI, Decatur CL, Licht JD, Smalley KSM, Correa ZM, Kurtenbach S, Harbour JW. BAP1 Loss Promotes Suppressive Tumor Immune Microenvironment via Upregulation of PROS1 in Class 2 Uveal Melanomas. Cancers (Basel). 2022 Jul 28;14(15):3678; PMID: 3595434 FBRP/Bankhead-Coley 7BC05 (PI: Smalley) “Defining and targeting epigenetic deregulations in uveal melanomas” (2017-2020); \$1,468,200 NIH/NCI R01CA256193 (MPIs: Smalley/Licht/Harbour) “Characterization and Targeting of the Epigenetic State Underlying Uveal Melanoma Liver Metastasis” (2021-2026); \$3,276,655 NIH/NCI R01CA262483 (MPIs: Smalley/Licht) “Defining and Targeting Epigenetic Plasticity-Driven Drug Resistance and Immune Escape in Melanoma” (2022-2027); \$2,441,521 NCT05170334 (PI: Tarhini, A) “A Phase II Study of Binimetinib Plus Belinostat for Subjects with Metastatic Uveal Melanomas”				
FACCA-2016-06 9/1/16-8/31/17	Vadaparampil, S DeGennaro, V Hurley, J George, S	Moffitt UF Health UM Sylvester UM Sylvester	\$150,000	The effect of immigration on the development of breast cancer in women of African descent

Barreto-Coelho P, Cerbon D, Schlumbrecht M, Parra CM, Hurley J, George SHL. Differences in breast cancer outcomes amongst Black US-born and Caribbean-born immigrants. *Breast Cancer Res Treat.* 2019 Nov;178(2):433-440. doi: 10.1007/s10549-019-05403-9. Epub 2019 Aug 14. PMID: 31414243; PMCID: PMC7039732.

NIH/NCI R01CA204819 (PI: Pal) *“Breast Cancer in Blacks: Impact of Genomics, Healthcare Use and Lifestyle on Outcomes (BRIGHT)”* (2017-2022); \$301,177. *Note, only counting subcontract awarded to Moffitt

Chan-Zuckerberg Initiative DAF2021-240624 (PI: George) *“African Caribbean scNetwork”* (2021-2024); \$1,654,196

Pfizer (PI: George) *“African Caribbean Cancer Consortium Breast and Prostate Cancer Collaborative”* (2021-2023); \$607,302

FACCA-2017-01 8/1/17 – 1/31/18	Forsyth, P Kasahara, N	Moffitt UM Sylvester	\$100,000	Virotherapy combination strategy for glioblastoma
--	---------------------------	-------------------------	-----------	---

ROI Pending

FACCA-2017-02 8/1/17 – 7/31/18	Giuliano, A Shenkman, E Jones, P	Moffitt UF Health UM Sylvester	\$150,000	Florida increases rates of screening and treatment of hepatitis C virus (FIRST HCV)
--	--	--------------------------------------	-----------	---

Vadaparampil ST, Fuzzell LN, Rathwell J, Reich RR, Shenkman E, Nelson DR, Kobetz E, Jones PD, Roetzheim R, Giuliano AR. HCV testing: Order and completion rates among baby boomers obtaining care from seven health systems in Florida, 2015-2017. *Prev Med.* 2020 Jul 25:106222. doi: 10.1016/j.ypmed.2020.106222. Epub ahead of print. PMID: 32721414.

Kasting ML, et al, There’s just not enough time: a mixed methods pilot study of hepatitis C virus screening among baby boomers in primary care. *BMC Fam Pract.* 2020 Dec 2;21(1):248; PMID: 33267799

Dickey BL, et al, Hepatitis C virus (HCV) seroprevalence, RNA detection, and genotype distribution across Florida, 2015-2018. *Prev Med.* 2022 Aug; 161: 107136; PMID: 35803347

FACCA-2017-03 8/1/17 – 7/31/18	Schabath, M Quinn, G Markham, M Seay, J	Moffitt Moffitt UF Health UM Sylvester	\$150,000	Developing provider-focused LGBT communication skill building for oncologists
--	--	---	-----------	---

Seay J, Hicks A, Markham MJ, Schlumbrecht M, Bowman-Curci M, Woodard J, Duarte LF, Quinn GP, Schabath MB. Web-based LGBT cultural competency training intervention for oncologists: Pilot study results. *Cancer.* 2020 Jan 1;126(1):112-120. doi: 10.1002/cncr.32491. Epub 2019 Sep 16. PMID: 31524952.

Seay J, Hicks A, Markham MJ, Schlumbrecht M, Bowman M, Woodard J, Kollfrath A, Diego D, Quinn GP, Schabath MB. Developing a web-based LGBT cultural competency training for oncologists: The COLORS training. *Patient Educ Couns.* 2019 May;102(5):984-989. doi: 10.1016/j.pec.2019.01.006. Epub 2019 Jan 7. PMID: 30642714.

BMS Foundation (PI: Schabath) *“The Curriculum for Oncologists on LGBT Populations to Optimize Relevance & Skills (COLORS) Trial”* (2020-2023); \$299,961

BMS Corporation (PI: Schabath) *“The Curriculum for Oncologists on LGBT Populations to Optimize Relevance & Skills (COLORS) Trial”* (2020-2021); \$40,000

NIH/NCI R21CA245858 (MPIs: Guo/Bian) *“Using Electronic Health Records from a Large Clinical Data Research Network to Understand Cancer Burden and Cancer Risks Among Transgender and Gender Nonconforming (TGNC) Individuals”* (2020-2022); \$773,365

MCC19351 (PI: Schabath, M) *“Developing Provider-Focused LGBT Communication Skill Building for Oncologists”*

FACCA-2017-04 8/1/17 – 7/31/18	Sayour, E Gilboa, E	UF Health UM Sylvester	\$100,000	Preventative vaccination against neoantigens in MRD and premalignant settings
--	------------------------	---------------------------	-----------	---

FBRP/Bankhead Coley 20B11 (PI: Sayour) *“Lipid-Nanoparticle Vaccines Targeting Metastatic Lung Cancer from Osteosarcoma”* (2020-2023); \$636,610

NIH/NCI R37CA251978 (PI: Sayour) *“Overcoming the Blood-Brain Barrier with Nanoparticle Vaccines Against Gliomas”* (2021-2026); \$2,659,044

NIH/NCI R01CA266857 (PI: Sayour) *“Overcoming Metastatic Spread of Osteosarcoma with RNA Loaded Nanoparticles”* (2022-2027); \$2,931,465

NCT04573140 (PI: Ghiaseddin, A) *“Study of RNA-Lipid Particle (RNA-LP) Vaccines for Newly Diagnosed Pediatric High-Grade Gliomas (pHGG) and Adult Glioblastoma (GBM)”*

NCT05660408 (PI: Ligon, J) *“A Phase I/II Study of RNA-Lipid Particle (RNA-LP) Vaccines for Recurrent Pulmonary Osteosarcoma (OSA)”*

FACCA-2018-01 10/1/18 – 8/31/20	Pierce, C Jobin, C Abreu, M	Moffitt UF Health UM Sylvester	\$150,000	Role of intestinal microbiota in lung cancer therapy
---	-----------------------------------	--------------------------------------	-----------	--

Newsome R, et al. Interaction of Bacterial Genera Associated with Therapeutic Response to Immune Checkpoint PD-1 Blockade in a United States Cohort. *Genome Med.* 2022. Mar 29;14(1); PMID: 35346337

FACCA-2018-02 10/1/18 – 8/31/20	Vadaparampil, S Wilkie, D Kobetz, E	Moffitt UF Health UM Sylvester	\$150,000	FACCA disparities Think Tank
---	---	--------------------------------------	-----------	------------------------------

Dyal, BD. et al. (2022). Developing the Florida Academic Cancer Center Alliance Health Disparities Common Measure: The Florida Health and Ancestry Survey. *Cancer Control*; PMID: 35758601

Cooks, EJ. Et al (2022). What did the pandemic teach us about effective health communication? Unpacking the COVID-19 infodemic. *BMC Public Health*, 22(1), 2339; PMID: 36514047

NIH/NCI U01CA274970 (MPIs: Krieger/Carrasquillo) “Precision Clinical Trial Recruitment to Promote Cancer Health Equity Across Florida” (2022-2027); \$3,474,465

FACCA-2019-01 7/1/19 – 6/30/20	Davila, M Schatz, J	Moffitt UM Sylvester	\$100,000	Determinants of response to CAR-T cellular immunotherapy in aggressive B cell lymphomas
--	------------------------	-------------------------	-----------	---

Faramand R, Jain M, Staedtke V, Kotani H, Bai R, Reid K, Lee SB, Spittler K, Wang X, Cao B, Pinilla J, Lazaryan A, Khimani F, Shah B, Chavez JC, Nishihori T, Mishra A, Mullinax J, Gonzalez R, Hussaini M, Dam M, Brandjes BD, Bachmeier CA, Anasetti C, Locke FL, Davila ML. Tumor Microenvironment Composition and Severe Cytokine Release Syndrome (CRS) Influence Toxicity in Patients with Large B-Cell Lymphoma Treated with Axicabtagene Ciloleuce. *Clin Cancer Res.* 2020 Sep 15;26(18):4823-4831. doi: 10.1158/1078-0432.CCR-20-1434. Epub 2020 Jul 15. PMID: 32669372; PMCID: PMC7501265.

Jain et al., Whole-genome sequencing reveals complex genomic features underlying anti-CD19 CAR T-cell treatment failures in lymphoma. *Blood.* 2022 Aug 4;140(5):491-503; PMID: 35476848

FACCA-2019-02 7/1/19 – 6/30/20	Kladde, M Ayad, N	UF Health UM Sylvester	\$100,000	Epigenetic basis of glioblastoma chemoresistance
--	----------------------	---------------------------	-----------	--

NIH/NIGMS RM1GM139690 (MPIs: Moldawer/Efron/Kladde/Mathews) “Dysfunctional Myelopoiesis and Myeloid-Derived Suppressor Cells in Sepsis Pathobiology” (2022-2026); \$8,282,353

Application (Inventor: Kladde) “Methods and Kits for Targeted Cleavage and Enrichment of Nucleic Acids for High-Throughput Analyses of User-Defined Genomic Regions”

FACCA-2019-03 7/1/19 – 6/30/20	Lele, T Xu, M	UF Health UM Sylvester	\$100,000	Nuclear envelope defect and generation of micronuclei in ovarian cancer development and immune therapy
--	------------------	---------------------------	-----------	--

Smith, ER. Et al Nuclear Lamin A/C Expression is a Key Determinant of Paclitaxel Sensitivity. *Mol Cell Biol.* 2021; PMID: 33972393

Smith, ER. Et al. Rationale for Combination of Paclitaxel and CDK4/6 Inhibitor in Ovarian Cancer Therapy - Non-mitotic Mechanisms of Paclitaxel. *Front Oncol.* 2022; PMID: 36185294

Smith, ER. Et al. Paclitaxel Resistance Related to Nuclear Envelope Structural Sturdiness. *Drug Resist Updat.* 2022; PMID: 36368286

NIH/NCI R01CA230916-03S1 (MPIs: Xu) “Ovarian Epithelial Cancer Progenitor Cell Population” (2020-2021); \$157,823

FACCA-2019-04 7/1/19 – 6/30/20	Smalley, K Wang, G	Moffitt UM Sylvester	\$100,000	Epigenetically reversing BRAF inhibitor resistance in melanoma by vitamin C
--	-----------------------	-------------------------	-----------	---

Gan L, Camarena V, Mustafi S, Wang G. Vitamin C Inhibits Triple-Negative Breast Cancer Metastasis by Affecting the Expression of YAP1 and Synaptopodin 2. *Nutrients.* 2019 Dec 6;11(12):2997; PMID: 31817810

US Army/CDMRP (PI: Wang) “Expanding the Therapeutic Window of PI3K Inhibitors to Treat Triple Negative Breast Cancer” (2022-2024); \$1,531,941

FACCA-2022-01 9/15/22 – 6/30/23	Coghill, A O’Neil, D	Moffitt UM Sylvester	\$100,000	Establishing a Multi-Site HIV Oncology Research Program in Florida
---	-------------------------	-------------------------	-----------	--

ROI Pending

FACCA-2022-02 9/15/22 – 6/30/23	Islam, J Staras, S Schlumbrecht, M	Moffitt UF Health UM Sylvester	\$150,000	Trends and Disparities in Cervical Cancer Screening Uptake and Follow-Up Among Women in Florida
---	--	--------------------------------------	-----------	---

ROI Pending

FACCA-2022-03 9/15/22 – 6/30/23	Jain, M Spiegel, J	Moffitt UM Sylvester	\$100,000	Target Antigen Density and T Cell Exhaustion Impact Outcomes After CAR19 and Post-CAR Relapse
---	-----------------------	-------------------------	-----------	---

ROI Pending

FACCA RETREAT AGENDAS

Retreat agendas for each of the three years are cataloged in the following pages.

Florida Academic Cancer Center Alliance (FACCA) Virtual Research Retreat October 28-29 via ZOOM

Wednesday, October 28, 2020: 1:00 pm – 4:40 pm

1:00 - 1:05 **UF Director Welcome**
Jonathan Licht, MD

1:05 - 1:30 **Opening Remarks**
Jonathan Licht, MD [UF]
John Cleveland, PhD [Moffitt]
Stephen Nimer, MD [SCCC]

1:30 - 2:30 **Session 1: Aging and Cancer**

Moderator: Lizi Wu, PhD

Daohong Zhou, PhD (UF)
Senescent Cells: An Emerging Target for Aging and Cancer

Ana Gomes, PhD (Moffitt)
Age-Driven Mechanisms That Promote Tumor Progression

Maria E. Figueroa, MD (Sylvester)
Epigenetic Dereglulation in Hematopoietic Stem Cells with Aging

2:30 - 2:35 **5 min break**

2:35 - 3:35 **Parallel Sessions 2-3**

Session 2: Drug Resistance

Moderator: Keiran Smalley, PhD

Keiran Smalley, PhD (Moffitt)
Overcoming Targeted Therapy Resistance Through Immune Priming

Jonathan Licht, MD (UF)
NSD2 Mutation: An Epigenetic Cause of Therapy resistance in Childhood Acute Lymphocytic Leukemia

Nagi Ayad, PhD (Sylvester)
Integration of Transcriptomic, Proteomic, and Cheminformatic Datasets to Overcome Resistance in Glioblastoma

Session 3: Cancer Survivorship

Moderator: Frank Penedo, PhD

Diana Wilkie, PhD (UF)
Dignity: Status of a Cancer Survivorship Imperative

Brian Gonzalez, MD (Moffitt)
Identifying Disparities in Prostate Cancer Patient-Reported Outcomes

Diana Molinares, MD (Sylvester)
Cancer Rehabilitation Medicine in Survivorship

3:35 - 3:40

5 min break

3:40 - 4:40

Parallel Sessions 4-5

Session 4: Biomarkers – Liquid Biopsy

Moderator: Z. Hugh Fan, PhD

Yong Zeng, PhD (UF)

Liquid Biopsy-based Cancer Diagnosis and Prognosis Using Advanced Extracellular Vesicle Analysis Nanochips

Liang Wang, PhD (Moffitt)

Liquid Biopsies in Advanced Prostate Cancer

Ashutosh Agarwal, PhD (Sylvester)

TBD

Session 5: Recruitment of Under Represented Minorities in Clinical Trials

Moderator: Folakemi Odedina, PhD

Folakemi Odedina, PhD (UF)

Improving the Representation of Blacks in Clinical Trials: Innovative Recruitment Methods

Susan Vadaparampil, PhD, MPH/ Jhanelle Gray, MD (Moffitt)

Center-wide and Clinic-level Efforts to Increase Minority Participation in Clinical Trials

(Sylvester)

TBD

Thursday, October 29, 2020: 8:00 am – 1:30 pm

8:00 - 9:00

Shared Resources

Moderator: Steven Madore, PhD

Steven Madore, PhD (UF)

Long Read DNA Sequencing

Christine O’Connell / Florian Karreth (Moffitt)

The Moffitt Gene Targeting Core

George Grills, PhD (Sylvester)

Overview of Sylvester Shared Resources and Exploring the Possibility of Establishing Regional Shared Resources

9:00 - 10:00

Session 6: Single Cell Technologies and Application

Moderator: William Harbour, MD

Ann Chen, PhD (Moffitt)

Single Cell RNA-seq and Metabolomics Visual Analytics

David Tran, MD, PhD (UF)

TBD

William Harbour, MD (Sylvester)

New Discoveries in Eye Cancer Using Single-Cell Sequencing

10:00 - 10:05

5 min break

10:05 - 11:05

Parallel Sessions 7-8

Session 7: Health Equity

Moderator: Folakemi Odedina, PhD

Nancy Mendenhall, MD (UF)

TBD

Lauren Peres, PhD (Moffitt)

Expanding Our Understanding of Racial/Ethnic Disparities in Ovarian Cancer

Erin Kobetz, PhD, MPH (Sylvester)

TBD

Session 8: New Technologies: Drug Development

Moderator: Daohong Zhou, MD

Justin Lopchuk, PhD (Moffitt)

New Synthetic Methods for Enabling Drug Discovery

Guangrong Zheng, PhD

Targeted Degradation of Bcl-xL and Beyond

Shaun Brothers, PhD (Sylvester)

Cancer Drug Personalization via Unbiased High Throughput Screening

11:05 - 11:10

5 min break

11:10 - 12:10 pm

Parallel Sessions 9-10

Session 9: Resistance to Immunotherapy

Moderator: Srikumar Chellappan, PhD

Jose Conejo-Garcia, MD, PhD (Moffitt)

CD277 Targeting Abrogates PD-1-resistant Malignant Progression Through Coordinated GD and AB T Cell Responses

Lingtao Jin, PhD (UF)

Lipid Metabolism Signaling in Anti-tumor Immunity

Marco Davila, MD, PhD (Moffitt)

Mechanisms of CAR T Cell Toxicity and Resistance

Krishna Komanduri, MD (Sylvester)

Relapse After CAR-T Therapy—Mechanisms and Strategies to Improve Outcomes

Session 10: Obesity, Metabolism, and Cancer

Moderator: Frederic Kaye, MD

Sara St. George, PhD (Sylvester)

Using the IDEAS Framework to Develop a Multigenerational Digital Lifestyle Intervention for Women Cancer Survivors and Their Families

Ryan Kolb, PhD (UF)

Obesity, Inflammation and Breast Cancer

Gina DeNicola, PhD (Moffitt)

Redox Regulation of Mitochondrial Metabolism

12:10 - 12:15

5 min break

12:15 - 1:15

Parallel Sessions 11-12

Session 11: Microbiome

Moderator: Anna Coghill, PhD, MPH

Sabita Roy, PhD (Sylvester)

Opioid Modulation of Gut Microbiome: Implications in Cancer Pain Management

Christian Jobin, PhD (UF)

Intestinal Microbiota Influences Anti-PD1 Responses in NSCLC Patients

Ryan Thomas, MD (UF)

Natural Killer Cells and the Microbiota: Regulators of Pancreatic Cancer Development

Session 12: AI in Cancer Research

Moderator: Jiang Bian, PhD

Jiang Bian, PhD (UF)

The Big Short with AI in Biomedical Sciences: From Prediction to Action

Issam El Naqa, PhD (Moffitt)

AI in Cancer Research: Potentials and Challenges

Raymond R. Balise, PhD (Sylvester)

Predicting Late Stage Breast Cancer with Traditional and Machine Learning Methods

1:15 - 1:30

Closing Remarks

Stephen Nimer, MD [SCCC]

John Cleveland, PhD [Moffitt]

Jonathan Licht, MD [UF]

Florida Academic Cancer Center Alliance Retreat

January 18 - 19, 2022

Link to Gather Town FACCA Retreat: <https://gather.town/app/ZvVd6CjraQfONaS/FACCA>

Day 1: Tuesday, January 18: 12:00 pm – 5:30 pm

12:00 – 12:05 **Moffitt Center Director Welcome** *(Location: Zoom/Webinar)*

John C. Cleveland, PhD (MCC)

12:05 – 12:30 **Opening Remarks – State Update**

John Cleveland, PhD (MCC)
Jonathan Licht, MD (UF)
Stephen Nimer, MD (SCCC)

12:30 – 1:00 **Session 1: Cancer & Aging** *(Location: Zoom/Webinar)*

Moderator: Justin Taylor, MD (SCCC)

Presentation: Cancer & Aging from a Population Science Perspective
Tracy Crane, PhD (SCCC)

Presentation: Clonal Hematopoiesis Research at Moffitt Cancer Center: From Bedside to Big Data and Back
Nancy Gillis, PharmD, PhD (MCC)

Presentation: Modeling clonal hematopoiesis in solid tumors
Olga Guryanova, MD, PhD (UF)

1:00 – 1:30 **Concurrent Breakout Sessions** *(Location: Gather Town Breakout Rooms)*

Breakout Room A: Cancer & Aging from a Population Science Perspective
Tracy Crane, PhD (SCCC)

Breakout Room B: Mechanisms and implications of clonal hematopoiesis
Olga Guryanova, MD, PhD (UF)
Nancy Gillis, PharmD, PhD (MCC)

1:30 – 2:00 **Session 2: Cancer Prevention, Care Delivery & Survivorship** *(Zoom/Webinar)*

Moderator: Jenny Vidrine, PhD (MCC)

Presentation: mHealth and community-based cancer prevention: Reaching and treating smokers
Damon Vidrine, DrPH (MCC)

Presentation: Psychosocial Impact of Cancer on Patients and Families: Patient and Family Focused Research and Care
Youngmee Kim, PhD (SCCC)

Presentation: Using Computational Modeling to Enhance Cancer Care Delivery
Wesley Bolch, PhD (UF)

2:00 – 2:30 **Concurrent Breakout Sessions** *(Location: Gather Town Breakout Rooms)*

Breakout Room A: mHealth Approaches to Community-based Cancer Prevention
Damon Vidrine, PhD (MCC)

Breakout Room B: Psychosocial Impact of Cancer on Patients and Families
Youngmee Kim, PhD (SCCC)

Breakout Room C: Using Computational Modeling to Enhance Cancer Care Delivery
Wesley Bolch, PhD (UF)

2:30 – 3:30 **Updates from FACCA-funded Projects** *(Location: Zoom/Webinar)*

Florida Pancreas Collaborative Cycle 2015 & 2017 Renewal)

Jenny Permuth, PhD (MCC)

Defining and targeting the aberrant chromatin function in uveal melanoma (Cycle 2016)

Jonathan D. Licht, MD (UF)

Richard Bennett, PhD (UF)

Developing provider-focused LGBT communication skills for oncologists (Cycle 2017)

Matthew Schabath, PhD (MCC)

3:30 – 4:00

Session 3: Metabolism *(Location: Zoom/Webinar)*

Moderator: Scott Welford, PhD (SCCC)

Presentation: Adipokine-driven metabolic rewiring in clear cell Renal Cell Carcinoma

Scott Welford, PHD (SCCC)

Presentation: Diet, the human microbiome, and cancer risk: setting the stage for innovative studies to address cancer disparities

Doratha Byrd, PhD, MPH (MCC)

Presentation: Metabolomics, lipidomics and AI in cancer diagnostics

Timothy Garrett, PhD (UF)

4:00 – 4:30

Breakout Session *(Location: Gather Town Breakout Room D via Zoom Link)*

Breakout Room D: Identifying & overcoming barriers to cancer metabolism research in Florida

Scott Welford, PHD (SCCC)

Doratha Byrd, PhD, MPH (MCC)

Timothy Garrett, PhD (UF)

4:30 – 5:30

Concurrent Poster & Networking Sessions *(Location: Gather Town)*

Poster Session: Please proceed to the Poster Room to view poster presentations. Each Center will have a poster covering unique Shared Resources.

Networking: Feel free to use the designated seating areas in the main lobby, any areas in the Keynote Hall* or any of the three breakout rooms if you want to have private conversations.

*Reminder: Conversations in the Keynote Room can be heard by anyone “standing” close together, just like in a live setting. Therefore, multiple groups can use the Keynote Room for networking.

Day 2 Agenda Continued Next Page

Day 2: Wednesday, January 19: 8:30 am – 11:30 am

8:30 – 9:00 **Session 4: Tumor Immunology and Immunotherapy** (Zoom/Webinar)

Moderator: Elias Sayour, MD, PhD (UF)

Presentation: Overcoming Immunotherapeutic Obstacles for Effective Antitumor Response.

Jianping Huang, MD, PhD (UF)

Presentation: Mechanisms for lymphoma resistance to CAR T cell therapy

Marco Davila, MD, PhD (Moffitt)

Presentation: Promoting an anti-tumoral myelopoiesis

Paolo Serafini, PhD (SCCC)

9:00 – 9:30 **Concurrent Breakout Sessions** (Location: Gather Town Breakout Rooms)

Breakout Room A: Cancer Immunotherapy

Jianping Huang, MD, PhD (UF)

Marco Davila, MD, PhD (Moffitt)

Breakout Room B: Cancer Immunology and Immunoregulation

Paolo Serafini, PhD (SCCC)

9:30 – 10:00 **Session 5: Virus and Cancer (HPV & HIV)** (Location: Zoom/Webinar)

Moderator: Anna Coghill, PhD

Presentation: The Impact of Comorbid HIV on Breast Cancer Treatment and Outcomes

Dan O'Neil, MD, MPH (SCCC)

Presentation: Adapting a human papillomavirus vaccine education resource for Spanish speaking young adult men who have sex with men

Shannon Christy, PhD (MCC)

Presentation: Insights into DNA repair, epigenetic silencing, and the inflammasome through Epstein-Barr virus

Sumita Bhaduri-McIntosh, MD, PhD (UF)

10:00 – 10:30 **Concurrent Breakout Sessions** (Location: Gather Town Breakout Rooms)

Breakout Room A: HIV and Cancer Infrastructure across FACCA

Anna Coghill, PhD (MCC)

Breakout Room B: Grant Opportunities for HPV-related cancer prevention

Shannon Christy, PhD (MCC)

Breakout Room C: Identifying researchers interested in Herpes virus work across FACCA

Zsolt Toth, PhD (UF)

Zhe Ma, PhD (UF)

Rolf Renne, PhD (UF)

Michael McIntosh, PhD (UF)

10:30 – 11:15 **Networking Session** (Location: Gather Town)

Please feel free to use the designated seating areas in the entrance hall, any areas in the Keynote Hall or any of the three breakout rooms.

11:15 – 11:30 **Closing Remarks** (Location: Zoom/Webinar)

Stephen Nimer, MD [SCCC]

John Wingard, MD (UF)

John Cleveland, PhD [Moffitt]

Florida Academic Cancer Center Alliance

Moffitt Cancer Center
Sylvester Comprehensive Cancer Center
University of Florida Health Cancer Center

2023 Annual Retreat

DAY 1: Monday, March 27, 2023

10:30 AM – 12:00 PM **Registration** **Foyer Outside Grand Doral Ballroom**

12:00 PM – 1:00 PM **Director's Welcome & Lunch** **Grand Doral Ballroom**

Stephen Nimer, MD, Director, Sylvester Comprehensive Cancer Center
John Cleveland, PhD, Director, Moffitt Cancer Center
Jonathan Licht, MD, Director, UF Health Cancer Center

1:00 PM – 2:30 PM **Plenary Session – Population Science** **Grand Doral Ballroom**

Moderator: Sabita Roy, PhD, Sylvester Comprehensive Cancer Center
Heather Jim, PhD, Moffitt Cancer Center
Energize: Cognitive-Behavioral Therapy for Cancer-Related Fatigue
Tracy E. Crane, PhD, Sylvester Comprehensive Cancer Center
Integrating patient generated health data in cancer care to improve outcomes
Ramzi G. Salloum, PhD, UF Health Cancer Center
Sustainability and Health Equity in Implementing Tobacco Treatment Programs in Cancer Care

2:30 PM – 2:45 PM **BREAK**

2:45 PM – 4:00 PM **Concurrent Sessions**
These sessions will each have a series of brief presentations focused on a theme.

Session 1A: Population Science **Magnolia**

Moderator: Luisel Ricks-Santi, PhD, UF Health Cancer Center
Matthew Schlumbrecht, MD, MPH, Sylvester Comprehensive Cancer Center
New perspectives on disparities in women with endometrial cancer
Janice Krieger, PhD, UF Health Cancer Center
Communication, community, and co-design: A precision message intervention delivered by virtual health assistants to increase clinical trials referrals.
Vani N. Simmons, PhD, Moffitt Cancer Center
Smoking Cessation among Spanish-Speaking Adults
Heather Jim, PhD, Moffitt Cancer Center
Research Updates from Population Science at Moffitt

Session 1B: Tumor Microenvironment **Acacia 2**

Moderator: Weizhou Zhang, MD, UF Health Cancer Center
Zhipeng Meng, PhD, Sylvester Comprehensive Cancer Center
Roles of Mechanotransduction and Hippo Signaling in Tissue Growth Control and Carcinogenesis
Christian Jobin, PhD, UF Health Cancer Center
Colorectal tumors display evidence of bacterial-mediated mutations
Thordur Oskarsson, PhD, Moffitt Cancer Center
Stress-induced metastatic niches in breast cancer

Sessions 1C and 1D on next page

Session 1C: Cancer Epigenetics & Tumor Biology		Acacia 3
Moderator: Rolf Renne, PhD, UF Health Cancer Center		
Mingyi Xie, PhD, UF Health Cancer Center <i>Small non-coding RNA regulation in Cancer</i>		
Eric Lau, PhD, Moffitt Cancer Center <i>The trouble with testosterone: a sugary story about sex and disparate melanoma invasiveness</i>		
Lluis Morey, PhD, Sylvester Comprehensive Cancer Center <i>Methylation of histone H3 lysine 36 is a barrier for therapeutic interventions of head and neck squamous cell carcinoma</i>		
Session 1D: Precision Oncology and Immunotherapy		Jacaranda
Moderator: Shanta Dhar, PhD, Sylvester Comprehensive Cancer Center		
John A. Ligon, MD, UF Health Cancer Center <i>Overcoming metastatic spread of osteosarcoma with RNA-loaded nanoparticles</i>		
Anna Lasorella, MD, Sylvester Comprehensive Cancer Center <i>Multi-omics integration for precision cancer medicine</i>		
Andriy Marusyk, PhD, Moffitt Cancer Center <i>Impact of stromal sheltering on therapy responses</i>		
4:00 PM – 5:00 PM	Breakout Sessions <i>These sessions allow discussion and collaboration with the presenters from the concurrent sessions and colleagues from other FACCA institutions.</i>	
Session 1A: Population Science		Magnolia
Moderators: Matthew Schlumbrecht (SCCC), Janice Krieger (UFHCC), Vani Simmons (MCC), Heather Jim (MCC)		
Session 1B: Tumor Microenvironment		Acacia 2
Moderators: Zhipeng Meng, PhD (SCCC), Thordur Oskarsson, PhD (MCC)		
Session 1C: Cancer Epigenetics & Tumor Biology		Acacia 3
Moderators: Mingyi Xie, PhD (UFHCC), Eric Lau, PhD (MCC)		
Session 1D: Precision Oncology and Immunotherapy		Jacaranda
Moderators: John A. Ligon, MD (UFHCC) Anna Lasorella, MD (SCCC), Andriy Marusyk, PhD (MCC)		
5:00 PM – 5:15 PM	Shared Resources Presentations	Grand Doral Ballroom
Edward Seijo, Moffitt Cancer Center <i>Moffitt Cancer Center Shared Resources: Snapshot of Cell Therapies Core & Chemical Biology Core</i>		
Steven Madore, PhD, UF Health Cancer Center <i>UFHCC Shared Resources</i>		
George S. Grills, Sylvester Comprehensive Cancer Center <i>Sylvester Shared Resources</i>		
5:15 PM – 6:15 PM	Poster Session & Reception	Acacia 1 & Palm Court
6:15 PM – 7:45 PM	Dinner	Grand Doral Ballroom

DAY 2: Tuesday, March 28, 2023

7:45 AM – 8:15 AM **Breakfast** **Grand Doral Ballroom**

8:15 AM – 9:45 AM **Plenary Session – Tumor Microenvironment** **Grand Doral Ballroom**

Moderator: Alejandro Villarino, PhD, Sylvester Comprehensive Cancer Center

Zhijian Qian, PhD, UF Health Cancer Center

Molecular regulation of leukemia stems cells in AML.

Jashodeep Datta, MD, Sylvester Comprehensive Cancer Center

Deconstructing Cancer Cell-Neutrophil Circuitry that Sustains Immunosuppressive Networks in Pancreatic Cancer

Brian Ruffell, PhD, Moffitt Cancer Center

Therapeutic targeting of tumor dendritic cells

9:45 AM – 10:00 AM **BREAK**

10:00 AM – 11:15 AM **Concurrent Sessions**
These sessions will each have brief presentations focused on a theme.

Session 2A: Population Science **Magnolia**

Moderator: David Lombard, MD, PhD, Sylvester Comprehensive Cancer Center

Youngmee Kim, PhD, Sylvester Comprehensive Cancer Center

My Health, Our Health: Interpersonal approach to cancer survivorship

Carma L. Bylund, PhD, UF Health Cancer Center

Clinician-patient communication and online cancer (mis)information

Tiffany L. Carson, PhD, MPH, Moffitt Cancer Center

Obesity and Cancer: Associations Across the Cancer Continuum

Peter A. Kanetsky, MPH, PhD, Moffitt Cancer Center

Motivating skin cancer prevention by feedback of genetic risk information

Session 2B: Tumor Microenvironment **Acacia 2**

Moderator: Priyamvada Rai, PhD, Sylvester Comprehensive Cancer Center

Weizhou Zhang, MD, UF Health Cancer Center

Single-cell RNAseq-based identification of targetable molecules in tumor-infiltrating regulatory T cells

Alex M. Jaeger, PhD, Moffitt Cancer Center

Decoding patterns of antigen presentation in the tumor microenvironment

Scott Welford, PhD, Sylvester Comprehensive Cancer Center

Microenvironmental control of cancer lipid metabolism

Session 2C: Cancer Epigenetics & Tumor Biology **Acacia 3**

Moderator: Lixin Wan, PhD, Moffitt Cancer Center

Luisa Cimmino, PhD, Sylvester Comprehensive Cancer Center

The role of one-carbon metabolism in the pathogenesis of myeloid malignancy

Joe Kissil, PhD, Moffitt Cancer Center

Elucidating the functions of YAP in neurofibromatosis type 2

Lizi Wu, PhD, UF Health Cancer Center

Aberrant CRTC Activation in Cancer

Session 2D on next page

Session 2D: Precision Oncology and Immunotherapy**Jacaranda****Moderator:** John Ligon, MD, UF Health Cancer Center

Shanta Dhar, PhD, Sylvester Comprehensive Cancer Center

Metabolic Plasticity Modulation with a combination Therapeutic Nanoparticle for Glioblastoma

Brian Czerniecki, MD, PhD, Moffitt Cancer Center

Using Immunotherapy to replace chemotherapy in breast cancer

Paul Castillo, MD, UF Health Cancer Center

*Leveraging T cell Immunity for Refractory Malignancies***11:15 AM – 12:15 PM Breakout Sessions***These sessions allow discussion and collaboration with the presenters from the concurrent sessions and colleagues from other FACCA institutions.***Session 2A: Population Science****Magnolia****Moderators:** Youngmee Kim, PhD (SCCC), Carma Bylund, PhD (UFHCC), Tiffany Carson, PhD, MPH (MCC), Peter Kanetsky, PhD (MCC)**Session 2B: Tumor Microenvironment****Acacia 2****Moderators:** Weizhou Zhang, MD (UFHCC), Alex M. Jaeger, PhD (MCC), Scott Welford, MD (SCCC)**Session 2C: Cancer Epigenetics & Tumor Biology****Acacia 3****Moderators:** Luisa Cimmino, PhD (SCCC), Joe Kissil, PhD (MCC), Lizi Wu, PhD (UFHCC)**Session 2D: Precision Oncology and Immunotherapy****Jacaranda****Moderators:** Paul Castillo, MD (UFHCC), Brian Czerniecki, MD, PhD (MCC), Shanta Dhar, PhD (SCCC)**12:15 PM – 12:30 PM BREAK****12:30 PM – 1:30 PM Lunch and Closing Remarks****Grand Doral Ballroom**

Stephen Nimer, MD, Director, Sylvester Comprehensive Cancer Center

John Cleveland, PhD, Director, Moffitt Cancer Center

Jonathan Licht, MD, Director, UF Health Cancer Center

First Annual Florida Hematopoiesis Meeting

8:00am – 3:00pm on Friday, May 19, 2023 | Ted & Marty Couch Auditorium

8:00 – 8:30am Introduction and Welcome

Session 1

Aging, Clonal Hematopoiesis, and the Progression to Hematologic Malignancy

8:30 – 8:45am *MMA as an age related factor driving expansion of clonal hematopoiesis*
Eric Padron (Moffitt)

8:45 – 9:00am *Therapeutic rejuvenation of aged vascular and hematopoietic systems*
Jason Butler (UF)

9:00 – 9:15am *Clonal Hematopoiesis and therapy myeloid neoplasms*
Francesco Maura (UM)

9:15 – 9:30am *Clonal hematopoiesis risk and progression in Florida firefighters: a study of the Sylvester Firefighter Cancer Initiative (FCI)*
Justin Taylor (UM)

9:30 – 9:45am *Talk title forthcoming*
John Cleveland (Moffitt)

9:45 – 10:05am SPEAKER PANEL DISCUSSION/QUESTIONS

10:05 – 10:30am MORNING BREAK

Session 2

Molecular Vulnerabilities and Cellular Therapies for the Treatment of Malignant Hematopoiesis

10:30 – 10:45am *Talk title forthcoming*
Stephen Nimer (UM)

10:45 – 11:00am *Unlocking CAR T cell Activity Against Acute Myeloid Leukemia Using RNA Vaccination*
Paul Castillo (UF)

11:00 – 11:15am *The Role of Foxm1 in the Malignant Hematopoiesis*
Zhijian Qian (UF)

11:15 – 11:30am *Talk title forthcoming*
Seongseok Yun (Moffitt)

First Annual Florida Hematopoiesis Meeting

8:00am – 3:00pm on Friday, May 19, 2023 | Ted & Marty Couch Auditorium

11:30 – 11:45am *Immune dysregulation and myeloid cells impact efficacy of CAR-T in Lymphoma*
Fred Locke (Moffitt)

11:45am – 12:05pm SPEAKER PANEL DISCUSSION/QUESTIONS

12:05 – 1:00pm LUNCH

Session 3

Epigenetics and Metabolism in Clonal and Malignant Hematopoiesis

1:00 – 1:15pm *Epigenetic dysregulation by the NSD2 histone methyltransferase creates a metabolic vulnerability in multiple myeloma*
Jon Licht (UF)

1:15 – 1:30pm *Dynamic Epigenetic Landscapes in MM*
Ken Shain (Moffitt)

1:30 – 1:45pm *Epigenetic deregulation of myeloid malignancies*
Ken Figueroa (UM)

1:45 – 2:00pm *The role of B12 and one-carbon metabolism in the pathogenesis of myeloid malignancy*
Luisa Cimmino (UM)

2:00 – 2:15pm *It's in the blood: Clonal hematopoiesis and its contribution to the tumor microenvironment*
Olga Guryanova (UF)

2:15 – 2:35pm SPEAKER PANEL DISCUSSION/QUESTIONS

2:35 – 3:00pm WRAP-UP and NEXT STEPS