

Sylvester Comprehensive Cancer Center - Cancer Center Membership Research Interests

Abaffy, Tatjana, Ph.D.	Assistant Professor	Molecular & Cellular Pharmacology	To lay foundation for the early detection of melanoma based on olfactory receptor recognition; To identify cancer volatile signature as a potential future diagnostic tool
Abramowitz, Matthew C., M.D.	Assistant Professor	Radiation Oncology	Latest technology in management of prostate and other genitourinary and head and neck malignancies
Abreu, Maria T., M.D.	Professor of Clinical	Medicine	Clinical- Inflammatory Bowel Disease; Ulcerative colitis Research - TLR4; colitis associated cancer; sporadic colon cancer. Interested in the role of chronic inflammation and colon cancer; specifically, studying how TLR4 leads to initiation or promotion of colon cancer
Acquavella, Nicolas, M.D.	Assistant Professor	Medicine	Development of novel combinatorial immunotherapeutic modalities for melanoma (uveal melanoma in collaboration with the Bascom Palmer Eye Institute) and pancreatic cancer.
Adkins, Rebecca D., Ph.D.	Professor	Microbiology & Immunology	T cell function, Protective Immunity, Development of immune system function in neonatal life, Normal physiological epigenetic programs during development and how they may be "derailed" in pediatric cancer
Agarwal, Ashutosh, Ph.D.	Assistant Professor	Biomedical Engineering	Tumor-ECM interactions; Tissue engineered models of metastases; Viable CTC culture and propagation
Ahn, Yeon S., M.D.	Professor	Medicine	RESEARCH INTERESTS: ITP, TTP, platelet dysfunction, antiphospholipid syndrome and other hypercoagulable states, bleeding disorders CLINICAL INTERESTS: General hematology, hematologic malignancies, platelet disorders, bleeding and thrombotic disorders
Alencar, Alvaro J., M.D.	Associate Professor of Clinical	Medicine	Lymphomagenesis, prognostic markers in lymphoma, lymphoma therapeutic trials, minorities in hematologic malignancy
Alvarez, Ofelia A., M.D.	Professor of Clinical	Pediatrics	Pediatric oncology; Supportive care; Brain tumors; Research ethics
Alves, Ney R., M.D.	Assistant Professor of Clinical	Medicine	Clinical trials: new therapies and strategies to treat lymphomas and myelomas.
Andreansky, Samita S., Ph.D.	Research Assistant Professor	Pediatrics	Treatment of cancer using synergistic approaches using immune enhancing drugs and oncolytic viruses.
Antoni, Michael, Ph.D.	Professor	Psychology	Cancer survivorship; effects of behavioral/psychosocial processes (stress, depression, social support) and physiological processes (neuroendocrine, immunologic, inflammatory) on quality of life and disease outcomes in cancer patients (breast cancer, prostate cancer, cervical neoplasia).
Ardalan, Bach, M.D.	Professor	Medicine	Drug modulation and development of new antineoplastic agents for patients with advanced colon and pancreatic tumors
Armstrong, Daniel F., Ph.D.	Professor	Pediatrics	Neurocognitive effects of childhood cancer, sickle cell disease and HIV, pain assessment and management; neurodevelopmental outcomes of childhood cancer, sickle cell disease, & HIV; pediatric quality of life; pediatric multicultural health
Arnold, David J., M.D.	Assistant Professor	Otolaryngology	Outcomes in research in cancer treatment; head and neck oncology and reconstructive surgery, microvascular reconstructive surgery; refinement of microvascular surgical techniques, tumor markers in head and neck cancer, advances in the treatment of thyroid cancer
Avisar, Eli, M.D.	Associate Professor of Clinical	Surgery	Esophagus, stomach, liver, pancreas, colorectal cancer, melanoma, sarcoma and breast; sentinel node technology, intra-operative PET applications, breast cancer prevention and early detection, ablative therapies (photodynamic therapy, laser, cryotherapy and radiofrequency ablation.), neo-adjuvant therapies for esophageal, liver, pancreas and breast
Ayad, Nagi G., Ph.D.	Associate Professor	Psychiatry	Identifying cell cycle regulatory mechanisms that are misregulated in cancer
Balise, Raymond R., Ph.D.	Research Assistant Professor	Urology	Dr. Balise is supporting the biostatistics and informatics needs for all the oncology projects based in the Department of Urology. So, he is interested in all aspects (from bench research to patient outcomes) of bladder, prostate and kidney cancer research.
Balkan, Wayne E., Ph.D.	Assistant Professor	Medicine	The role of steroid hormones in bone cell (osteoblast) differentiation and maturation.
Banerjee, Santanu, Ph.D.	Assistant Professor	Surgery	Dr. Banerjee's principal research projects deal with innate immunity and inflammation (both sterile and pathogenic), where one hand they look at the inflammation in gut, lungs and system due to dual insult of drug abuse/clinical drug administration and pathogens; on the other hand, they look at sterile inflammation due to metabolic disorders like diabetes and physiological conditions like obesity, where most often than not, the situations are go hand in hand. Chronic morphine, and resultant immunosuppression, leading to persistent yet low-level inflammation, has been one of the flagship projects. With this proposal, Dr. Banerjee intends to probe the longitudinal cascade of events leading to gut pathology due to HIV infection, in the context of drug abuse. Emphasis will be laid on microbial dysbiosis and metabolic changes in the context of aforementioned dual insults. They propose to do this using the powerful NSG-BLT humanized mice model, with engrafted human microbiome, which they have been preparing in-house and using for the past 2 years. This is one of the closest translational models to do this work. For this proposal, Dr. Banerjee will receive valuable inputs from his past mentor Prof. Sabita Roy, who has several decades of experience in opioid pharmacology and immunology.

Banerjee, Sulagna, Ph.D.	Assistant Professor	Surgery	Chemoresistance in Cancer Dr. Banerjee's primary research interest lies in understanding the molecular mechanisms that confer resistance to therapy in different cancers. Under this broad research interest umbrella, she is working on multiple areas: Chemoresistance and chemoevasive mechanisms in pancreatic cancer initiating cells: Tumor initiating cells are quiescent cells within a tumor that evade standard chemotherapy. Dr. Banerjee is evaluating the mechanisms of chemoresistance and apoptotic resistance in these cells. As a part of this, she is studying plasticity of tumor initiating cells by which they tend to interconvert between the TIC and the non-TIC population, thereby successfully evading therapy and causing tumor recurrence. In an attempt to understand and elucidate this, Dr. Banerjee is studying the environmental factors like hypoxia, inflammatory molecules and stress pathways in the microenvironment on one hand and also studying the active interaction of the different cell types within a tumor (like fibroblasts and immune cells).; Role of stroma in conferring resistance to therapy in pancreatic cancer: Pancreatic tumors are characterized by a robust stroma that physically acts as a barrier for successful drug delivery. She is evaluating the dynamic interactions between the stromal components and the tumor components and these are involved in secretion of extracellular matrix in order to develop novel therapeutics that can breach this stromal fortress in pancreatic cancer.; Understanding altered metabolic profile in different tumor cell types and evaluating their role in self renewal and chemoresistance.
Barber, Glen N., Ph.D.	Professor	Cell Biology	Viral Oncology. Developing viral oncolytic agents for the treatment of cancer. Understanding the role of innate immunity and the control of cancer. Understanding mechanisms of inflammation associated cancer. Developing immunotherapeutics for the treatment of cancer.
Barredo, Julio C., M.D.	Professor	Pediatrics	Pediatric oncology; Foliates as chemotherapeutic modulators; Molecular determinants of response to chemotherapy in lymphomas; Research to contribute scientific expertise in areas of both patient care and tumor biology
Beitinjaneh, Amer, M.D.	Associate Professor	Medicine	Dr. Beitinjaneh's clinical research interests are the long-term effect of stem cell transplantation, alternative donor transplantation, targeted therapy, immune and cellular therapy (including transplantation) for aggressive lymphomas.
Benedetto, Pasquale, M.D.	Professor	Medicine	Dr. Benedetto's research interests include genitourinary cancer (testis, bladder, kidney, prostate, orthopedic oncology), bone and soft tissue sarcomas, pancreas cancer, and lymphoma. His clinical interests focus on orthopedic oncology (softtissue s/o bone tumors), genitourinary oncology (testis kidney bladder), gastrointestinal oncology (pancreas, colon), and neuroendocrine tumors lymphoma.
Benveniste, Ronald J., M.D., Ph.D.	Assistant Professor of Clinical	Medicine	Serum biomarkers of glioma progression; Procollagen expression in high grade gliomas; Imaging in CNS tumors
Beurel, Eleonore, Ph.D.	Assistant Professor	Psychiatry	The role of depression in the potential worsening of metastasis in a breast cancer model.
Bhatia, Rita, M.D.	Assistant Professor/Clinical	Radiology	Head and neck radiology
Bhatia, Shivank, M.D.	Assistant Professor	Radiology	Prostate cancer, Liver cancer
Bhattacharya, Sanjoy K., Ph.D.	Professor	Ophthalmology	How lipid interacts with proteins and contribute to cell behavior and function. Development of methods to capture sugar containing proteins on cell surface and isolate lipids that binds to membrane fractionated this way. Altered state of cells (such as cells undergoing active detachment) will present lipid differences and enzymatic activities that contribute to such changes. Mass spectrometric methods that enables identification and quantification of such lipids. Such investigations are relevant for cancer. Another interest is posttranslational modification of protein-bound arginine deimination. Aberrant modification of arginine results in altered state of cells relevant for cancer.
Bishopric, Nanette, M.D.	Professor	Medicine	The focus of Dr. Bishopric's research is on the relationship between cardiac molecular stress responses and activation of the cell cycle. Cardiac hypertrophy (cellular enlargement) and apoptosis (programmed cell death) are common outcomes of imposed stress on the myocardium. Although the adult mammalian cardiac myocyte is a terminally differentiated, non-dividing cell, they believe that cell cycle regulatory molecules are important in regulating the processes of hypertrophy and apoptosis. Dr. Bishopric's and her colleagues employ models of pathological stress in vitro to gain insight into molecular adaptations to work overload, hypoxia, neurohormonal activation, and inborn or acquired abnormalities of mechanical or bioenergetic function. They are particularly interested in the molecular mechanisms by which the cardiac myocyte stress response is integrated and converted into survival or death outcomes.
Block, Norman, M.D.	Professor	Pathology	Developmental of Growth Hormone Releasing analogs, produced by Dr. Andrew V. Schally and staff, for application to a wide variety of cancers, human and animal.
Blomberg, Bonnie, Ph.D.	Professor	Microbiology & Immunology	Aging B Lymphocytes, and Immune Response in Breast Cancer Patients. Dr. Blomberg's laboratory is funded for projects within the immune system: To determine the molecular and cellular basis for the decline in the humoral immune response seen in aged mice and humans and; To assess the effect of psychosocial intervention on the immune system, inflammation and survival in breast cancer patients.
Blonska, Marzenna, Ph.D.	Assistant Professor	Medicine	Dr. Blonska's projects focus on oncogenic signaling pathways in B-cell lymphomas. Currently, she has three major research areas: To investigate the role of NF-kB and Jun signaling in lymphomagenesis; To reveal the molecular mechanisms that contribute to lymphoma progression and interaction with the microenvironment; To develop new biomarkers for lymphoma.
Briegel, Karoline, Ph.D.	Associate Professor	Surgery	WNT signaling and embryonic transcription factors in EMT, cancer stem cell regulation, breast cancer progression and metastasis; etiology of triple-negative breast cancer; anti-cancer stem cell based therapies

Brothers, Shaun, Ph.D.	Research Assistant Professor	Psychiatry and Behavioral Sciences	Discovery and development of novel therapeutics for disease. Dr. Brother's group runs the cancer center drug discovery core facility that is mandated with identifying and developing novel small molecules as tools for cancer research with the view that such compounds have the potential to become cancer therapeutics.
Burnstein, Kerry L., Ph.D.	Professor	Molecular & Cellular Pharmacology	Dr. Burnstein is interested in the mechanisms of steroid hormone receptor action in endocrine cancers. Her lab is investigating androgen receptor signaling in prostate cancer and its role in the development of therapeutic resistance. While androgen deprivation therapy for advanced prostate cancer results in tumor regression, eventually prostate cancer growth resumes in virtually all patients. The androgen receptor continues to drive cancer progression in recurrent disease. Dr. Burnstein's lab demonstrated that Vav3, a Rho GTPase guanine nucleotide exchange factor, is sufficient for prostate cancer progression following androgen withdrawal therapy. Vav3 enhances the activities of androgen receptor and androgen receptor variants and promotes prostate cancer growth. Vav3 is an activator of the small Rho GTPase, Rac1, and they showed further that Rac1 causes growth of prostate tumors under conditions of androgen deprivation. Similar to findings in prostate cancer, Vav3 is also up-regulated in breast cancer compared to normal breast tissue. Vav3 and Rac1 enhance estrogen receptor and androgen receptor activities, and inhibition of Rac1 effectively inhibits cancer growth. The Burnstein lab is currently examining the molecular basis for the tumorigenic activities of Vav3/Rac1 and evaluating novel therapeutic approaches in endocrine cancers. In studies of epigenetic processes that underlie prostate cancer growth and metastasis, Dr. Burnstein's lab demonstrated that the microRNA cluster encoding miR-23b and miR-27b specifically inhibits prostate cancer invasion and in vivo metastasis. They are now investigating the mechanisms responsible for the metastasis suppressing effects of these miRs.
Byrne, Margaret M., Ph.D.	Research Associate Professor	Public Health Sciences	Dr. Byrne's research interests focus on cancer screening and the screening decision-making process, including the psychological and quality of life effects of being screened. She currently is conducting research, through K07 funding, that explores anxiety, social support, and quality of life following an indeterminate result from screening for lung cancer. This research also will collect data on health care used to determine whether non-recommended follow up care is undertaken after screening. The long-term goal of this research is to identify the psychological and medical use consequences of being screened for lung cancer. This information can then be used in the decision-making process about screening. Dr. Byrne also has undertaken research, funded by the American Cancer Society, which looked at physicians' perceptions about, and recommendations for, colorectal cancer screening. As a part of the study, she also surveyed large insurance companies to determine whether coverage was available for screening colonoscopy. This research was specifically interested in examining the barriers to patients receiving screening colonoscopy.
Byrnes, John J., M.D.	Professor	Medicine	Dr. Byrnes' interests focus on hematologic malignancies, and retrovirus-associated malignancies. Other interests are mechanism and treatment of thrombotic microangiopathy syndromes, including thrombocytopenic thrombocytopenia purpura (TTP) and hemolytic-uremic syndrome (HUS).
Caban-Martinez, Alberto J., Ph.D., D.O., M.P.H	Assistant Professor	Public Health Sciences	The work environment plays an important role in worker health whether through possible exposures to job hazards or stress on the job, or through supportive social networks and opportunities to build self-esteem. There is mounting evidence that worksite cancer prevention interventions that integrate worksite health promotion and occupational health and safety are effective in promoting changes in cancer risk-related behaviors, particularly for blue-collar workers like construction workers. These workers face dual health risks through their exposures to occupational hazards and their high rates of risk-related behaviors, such as tobacco use, physical inactivity, or unhealthy diets. Dr. Caban-Martinez has demonstrated that the use of innovative worksite-based health assessments such as the lunch truck provides unique opportunities to provide workers with health promotion activities as well as collect self-report and biological data. Importantly, Dr. Caban-Martinez and his group has also observed increased levels of worker participation with this intervention model, compared to health promotion alone. Based on a synthesis of the evidence across studies, the Institute of Medicine and the National Institute for Occupational Safety and Health (NIOSH) have recommended this comprehensive approach to improving the health of workers. Dr. Caban-Martinez's research has also included collaborations with labor unions, with whom we share a common mission to promote worker health and safety.
Cai, Xiaodong, Ph.D.	Professor	Electrical and Computer Engineering	Develop machine learning algorithms and computer programs to analyze (big) data in cancer genomics, particularly those related to DNA sequences, gene expression, alternative splicing, and DNA methylation; Design and analyze mathematical models for gene regulatory networks for identifying cancer driver; Develop computational method for chemical genomics to discover drug targets for cancer therapy
Calfa, Carmen J., M.D.	Assistant Professor	Medicine	Breast cancer; Genetics; Disparities; The use of the immune system to treat cancer
Capobianco, Anthony, Ph.D.	Professor	Surgery	Compositions and Methods for Modulating the Notch Signal Transduction Pathway
Carcioppolo, Nicholas, Ph.D.	Assistant Professor	Communications	The development and assessment of persuasive health message materials designed to increase compliance with cancer prevention and cancer screening recommendations. Translating basic scientific research on cancer prevention and detection for a lay audience.
Carrasquillo, Olveen, M.D.	Associate Professor	Medicine	Dr. Carrasquillo's major interests include: Cancer disparities; Community healthcare workers; Community based participatory research; Quality improvement; Health services research; Cervical & colon cancer.

Carrico, Adam W., Ph.D.	Associate Professor	Public Health Sciences	Over the past decade, Dr. Carrico's work has focused extensively on optimizing the effectiveness of HIV treatment with people who use stimulants such as methamphetamine. Through conducting his ongoing clinical research with this population, he has become interested in developing and testing interventions to assist HIV+ persons with completing screening for and managing treatment of virally initiated cancers such as anal intraepithelial neoplasia (AIN). Dr. Carrico is also very interested in clinical research to optimize smoking cessation for cancer prevention because smoking is prevalent among HIV+ persons and a major driver of mortality in this population.
Carver, Charles, Ph.D.	Professor	Psychology	Role of psychosocial variables in cancer morbidity and quality of life in cancer patients, in terms of emotional disturbance, psychosexual disturbance, and disruption of normal life activities.
Castillo, Rosa, M.D.	Associate Professor of Clinical	Radiology	Gynecology-Oncology; Prostate; Rectum
Casula, Sabina M., M.D.	Assistant Professor	Medicine	In the past 3 years Dr. Casula's clinical practice focused exclusively on thyroid disease. Dr. Casula is the main provider for thyroid cancer patients within the Endocrine Division. She does not currently have any active ongoing research projects; however Dr. Casula is planning to collaborate with Dr. Kobetz in the firefighter cancer initiative.
Celik, Emrah, Ph.D.	Assistant Professor	Mechanical & Aerospace Engineering	Biophysical analysis of cancer cells at different stages of cancer progression; Isolation of tumor cells in blood circulation
Chapman, Jennifer R., M.D.	Assistant Professor	Pathology	Identification of the role of viruses and immunodeficiency in lymphomagenesis; Identification of biomarkers that are useful in: A) reproducible lymphoma classification B) disease risk stratification and C) target therapy assessment.
Chen, Xi, Ph.D.	Associate Professor	Public Health Sciences	Statistical genomics and bioinformatics
Chen, Zhibin, M.D., Ph.D.	Associate Professor	Microbiology & Immunology	A major goal of Dr. Chen's research program is to bridge genetic and genomic discoveries to cancer biology particularly in the area of tumor immunology. Specifically, they build animal models to mimic human genetic variations of immune regulatory genes and use the animal models to dissect the mechanisms of immune dysregulation, inflammation and cancer development. They also use these models to identify novel preventive and therapeutic interventions against cancer development.
Cho, Jeong H., M.D., Ph.D.	Associate Professor	Pathology	Cutaneous Lymphoma/Leukemia, Melanoma and Melanocytic lesions, Molecular; Pathology (application of laser capture microdissection, Serial analysis of gene expression (SAGE), PCR-based clonality tests, array-based comparative genomic hybridization, Melanoma FISH
Civantos, Francisco J., M.D.	Associate Professor	Medicine	Head & neck/skull base surgery; Evaluation of radionuclide guided sentinel node biopsy as a technique for determining risk of cancer metastases in cervical lymph nodes
Cote, Richard J., M.D.	Professor	Pathology	Major Areas of Research Interest and Research in Progress: Detection and characterization of micrometastases in patients with epithelial tumors, including national and international clinical trials in breast cancer and lung cancer; Analysis of tumor suppressor genes in human cancer; Molecular mechanisms of tumor progression and response to therapy; Molecular mechanisms of racial/ethnic variation in prostate cancer risk; Mechanisms of androgen independence in prostate cancer; Antigen, DNA and RNA retrieval in pathology specimens; p53 targeted therapy trial in bladder cancer, national and international clinical trial studies; Development of novel biosensors for protein analysis; Development of nanotechnology platforms for cancer applications; Integrated microdevice to capture and detect circulating tumor cells
Czaja, Sara J., Ph.D.	Professor	Psychiatry	Dr. Czaja's main interests in cancer research are the following: Behavioral interventions to support family caregivers of cancer patients; Behavioral interventions to support cancer patients, particularly older patients; The use of technology to deliver support to patients and caregivers; The impact of cancer and cancer treatments on cognition and functional outcomes; Cancer and aging.
D'Urso, Gennaro, Ph.D.	Associate Professor	Molecular & Cellular Pharmacology	Cell Cycle Control of DNA Replication. Understanding how DNA synthesis is regulated during the eukaryotic cell cycle
Daunert, Sylvia, Ph.D.	Professor	Biochemistry & Molecular Biology	Dr. Daunert's Lab is developing new molecular diagnostics tools employing nanotechnology approaches as well as nanocarrier-based targeted drug delivery platform with potential applications in cancer therapy.
Davis, Joanna, M.D.	Associate Professor	Pediatrics	Hemostasis and thrombosis
de la Fuente, Macarena, M.D.	Assistant Professor	Neurology	Brain Tumors
Deleo Hurley, Judith, M.D.	Associate Professor of Clinical	Medicine	Breast cancer; HIV malignancies; Cancer in pregnancy
de Lima Lopes, Gilberto, M.D.	Associate Professor of Clinical	Medicine	Clinical and translational research in Lung Cancer; Health economics, outcomes and policy research in Global Oncology
Deo, Sapna, Ph.D.	Associate Professor	Biochemistry & Molecular Biology	Emerging technologies for cancer diagnosis; Development of point of care HPV test for cervical cancer screening; MicroRNA analysis and detection
Desrosiers, Ronald C., M.D., Ph.D.	Professor	Pathology	Oncogenic herpesviruses; The Kaposi sarcoma herpesvirus (KSHV); Mechanisms of viral persistence, immune evasion, and pathogenesis; Use of recombinant herpesviruses toward development of a protective vaccine against HIV/AIDS.
Dhabhar, Firdaus S., Ph.D.	Professor	Psychiatry	Dr. Dhabhar is interested in basic and clinical research on: 1) How stress-related immune, endocrine, physiological and psychological mechanisms can affect cancer progression, treatment effectiveness, and survivorship. 2) Mechanisms mediating the effects of stress on cancer prevention efforts. 3) Cancer and cancer treatment related psychological & physiological stress effects.

Dhar, Shanta, Ph.D.	Associate Professor	Biochemistry & Molecular Biology	Engineering of Biodegradable Nanoparticles for Mitochondrial Trafficking of Therapeutics: Mitochondrial dysfunctions result in various diseases. Despite the desire to direct therapeutics to the mitochondria, the actual task is more difficult due to the complex nature of mitochondria. For the first time, Dr. Dhar's lab optimized properties of a biodegradable tunable nanodelivery vehicle for efficacious mitochondrial delivery of therapeutics. They are now applying this NP platform for various diseases where mitochondrial dysfunctions play significant roles and mechanistic investigations of this platform are underway.; Nano Engineering of Immune Cells for Cancer Immunotherapy: Aggressive cancers represent the focus of increasing interest at the clinical, biological, and epidemiological level. One of the effective method to tackle metastatic cancers will be to engage our immune system. Their research involves ex vivo engineering of the most potent antigen-presenting dendritic cells using biodegradable NPs containing metal-based photosensitizers. Currently Dr. Dhar's lab is exploring the utility of these systems in vivo and studying mechanistic aspects to expand the scope of these platforms for most metastatic cancers.; Brain Penetrating Nanoparticle Delivered Glycolytic Inhibitors for Glioma Stem Cell Population: Glioblastoma is the most common adult brain tumor and also is among the most devastating tumors. Despite the standard therapy that include surgery followed by radiotherapy, the prognosis remains poor. Thus glioblastoma results in one of the highest mortality rates of all human cancer types. Glioblastoma stem cells (GSCs) belong to a population that is responsible for tumor growth, recurrence, and resistance to therapies. These stem cells are located in the white matter of the brain. The blood-brain barrier protects the brain/Glia cells from foreign substances from the bloodstream, thus it becomes extremely difficult to attack these cell population with a therapeutic. Furthermore, current advances for attacking glioma stem cells rely mainly on protein marker expression and functional assessments, and these methods have limitations. The orphan drug dichloroacetate (DCA) is a mitochondrial kinase inhibitor that has the ability to alter cancer cell metabolism and the target enzyme of DCA, pyruvate dehydrogenase kinase-1 (PDK1) is highly expressed in all glioblastomas. Furthermore, the transformation of GSCs into a differentiated tumor is a multifactorial process which includes metabolic changes associated with increased expression of genes involved in glycolysis. Thus inhibition of glycolysis by targeting PDK1 in GSCs and glia population may be a promissory target in GBM. However, the molecular form of DCA shows poor uptake, bioavailability, and limited ability to reach its target the mitochondria of cancer cells. Dr. Dhar's lab is developing technologies to deliver DCA precisely to glioma stem cell mitochondria where PDK1 is located in the form of a prodrug and using nanoparticles (NPs) with the ability to cross the blood brain barrier and distribute in the white matter, it will be possible to provide a technology to use DCA for glioblastoma.; Mitochondrial Genome as a Target for Chemo-resistant Cancers: Mitochondrial DNA (mtDNA) plays significant roles in cell death and progress of various cancers to the metastatic stage. Thus, targeting mtDNA could lead to novel and effective therapies for aggressive cancer. This can be particularly important for cisplatin-based chemotherapy. Cisplatin is a widely used and FDA approved chemotherapeutic agent which is highly effective against several cancers. Therapeutic action of cisplatin relies on its ability to form inter-strand and intra-strand nuclear DNA
Dogan, Nesrin, Ph.D.	Professor	Radiation Oncology	Image Guided Adaptive Radiation Therapy
Donna, Elio, M.D.	Associate Professor of Clinical	Medicine	Role of different modalities of bronchoscopy in lung cancer
Dudeja, Vikas, M.D.	Assistant Professor	Surgery	Tumor micro environment including biology of stroma and that of immune environment. Genetics of tumor progression Metastases and tumor progression.
Echenique, Ana M., M.D.	Associate Professor	Radiology	Interventional Oncology; Irreversible electroporation; Palliative care and symptom management integration to cancer care
Ei-Ashry, Dorraya, Ph.D.	Associate Professor	Medicine	Breast cancer; Mechanisms of ER-negative breast cancer; Signal transduction; Mechanisms of anti-estrogen resistance; Novel therapeutics
Elgart, George, M.D.	Professor	Dermatology	Auto immune blistering diseases, melanoma, immunodermatology & dermatopathology
Ezuddin, Shabbir, M.D.	Associate Professor	Radiology	Not Provided
Farooq, Amjad, Ph.D.	Assistant Professor	Biochemistry & Molecular Biology	Dr. Farooq laboratory applies biophysical and in silico methods to repurpose existing drugs for the treatment of human disease, with particular emphasis on cancer.
Feaster, Daniel, Ph.D.	Associate Professor	Public Health Sciences	Statistical Methods for Clinical Trials and Effectiveness Research, Multilevel modeling, Structural Equations Modeling, Family-based health-related interventions, Drug Abuse, HIV/AIDS, and minority health disparities.
Fernandez, Gustavo, M.D.	Assistant Professor	Medicine	GU and Sarcomas
Feun, Lynn G., M.D.	Professor	Medicine	Melanoma and skin cancer; Hepatocellular carcinoma; Regional therapy
Figueroa, Maria E., M.D.	Associate Professor	Human Genetics	The lab studies the role of epigenetic modifications in transcriptional regulation during normal and malignant hemopoiesis. Their focus is mainly on how changes in normal chromatin patterns occur during malignant transformation and how these changes may contribute to the leukemogenic process. The Figueroa lab uses a combination of computational approaches based on genome-wide next generation sequencing data as well as in vitro and in vivo modeling.
Fischl, Margaret, M.D.	Professor	Medicine	Research, prevention, and treatment of HIV and AIDS in men, women, and children. Kaposi's sarcoma.
Fishman, Joel E., M.D., Ph.D.	Professor	Radiology	Lung cancer screening with CT and infections in immunocompromised patients (incl BMT)
Fornoni, Alessia, M.D., Ph.D.	Professor	Medicine	Mechanisms of drug induced kidney injury Multiple myeloma and amyloidosis
Franceschi, Dido, M.D.	Professor of Clinical	Surgery	Dr. Franceschi's research interests include foregut surgery, primary and metastatic liver disease, pancreas cancer, and breast cancer.

Franzmann, Elizabeth J., M.D.	Associate Professor	Otolaryngology	Molecular mechanisms of head and neck cancer progression. Role of CD44 in head and neck cancer and neck squamous cell carcinoma. The Franzmann lab is interested in the molecular mechanisms of head and neck squamous cell cancer (HNSCC) progression. Despite rigorous therapy using various combinations of surgery, radiation and chemotherapy initial treatment of HNSCC is successful only 50% of the time. Because of the complexity of the head and neck, current therapy often results in facial disfigurement, speech and swallowing problems and substantial healthcare costs. Certain groups including blacks and the economically disadvantaged suffer disproportionately from this disease. Improved screening and staging methods for HNSCC are needed. The Franzmannlab is investigating a simple, inexpensive early detection method for HNSCC. Data on over 180 subjects suggests that the soluble form of CD44 an adhesion molecule involved in tumorigenesis, is elevated in oral rinses of HNSCC patients compared to controls and distinguishes HNSCC from noncancer with 62-79% sensitivity and 88-100% specificity. Further pilot work, in collaboration with Dr. Vinata Lokeshwar, suggests that two related tumor markers, hyaluronic acid and hyaluronidase, are also detectable in oral rinses and when combined with the soluble CD44 test result in a highly sensitive and specific test for HNSCC. Since the test uses oral rinses and simple ELISA or ELISA-like assays, it is very easy to administer, noninvasive and inexpensive. Such qualities are very important for populations with limited access to expert care. Their study includes subjects enrolled from an underserved clinic, rich in minorities, which will allow them to confirm whether this test is useful in the population that needs it the most. The laboratory is also working to understand the role CD44 plays in HNSCC tumorigenesis. They are particularly interested in the CD44v3-containing isoforms since these isoforms contain a growth factor binding site. Using quantitative PCR, cloning and sequencing, and transfection experiments, preliminary work suggests that CD44v3-containing isoforms are differentially expressed in HNSCC tumors and normal tissue and may be involved in tumor cell migration. Using similar techniques, the Franzmann lab has also shown another isoform CD44s, which is the main isoform expressed in oral rinses, also appears to be involved in HNSCC growth and migration.
Galoian, Karina, Ph.D.	Research Associate Professor	Orthopedics & Rehabilitation	Molecular signal transduction mechanism of metastasis and cancer, neuropeptides and cancer inhibition m cancer stem cells, Epigenetics, cell adhesion , miRNA and stem cell markers
Garcia-Buitrago, Monica T., M.D.	Associate Professor	Pathology	Immunohistochemistry and molecular biomarkers in gastrointestinal, pancreatic and hepatobiliary neoplasms.
Garrido, Jose, M.D.	Associate Professor	Medicine	Not Provided
George, Sophia, Ph.D.	Research Assistant Professor	Obstetrics & Gynecology	The biological determinants of breast and ovarian cancer predisposition within the population of women at highest risk for developing these aggressive diseases.
Gilboa, Eli, Ph.D.	Professor	Microbiology & Immunology	Controlling, if not curing, intractable diseases such as cancer remain a major challenge. Immunological therapy is an approach that Dr. Gilboa's laboratory is exploring, specifically how to stimulate a powerful and sustained immune response in patients with a compromised immune system and a pre-existing antigenic load. Immunizing with dendritic cells (DC) loaded with tumor antigens is used as a powerful method of stimulating CD4+ and CD8+ T cell responses. Clinical trials in patients with prostate or renal cancer have demonstrated the immunogenicity of the DC-based vaccines as well as offered hints of clinical impact. To enhance the persistence of the vaccine-induced immune response, researchers in Dr. Gilboa's laboratory are developing aptamer-based agonists and inhibitors directed to costimulatory receptors such as 4-1BB or CTLA-4, respectively, and use RNAi to inhibit TCR attenuation pathways by targeting siRNAs to vaccine-activated T cells using aptamers. Immune suppressive pathways are targeted using small MW drugs, aptamers, and vaccination protocols. For example, vaccination against foxp3 is used to eliminate regulatory T cells, which interfere with tumor immunity. Meanwhile, aptamers are developed to block the immune suppressive effects of B7H1 or B7H4 upregulated on tumor cells. To overcome or limit the propensity of tumor cells to escape immune elimination via mutations, researchers are targeting the tumor stroma and have shown that vaccination against products expressed in the tumor vasculature such as VEGFR-2, or products expressed in tumor-infiltrating fibroblasts such as FAP, engender protective immunity.
Glick, Deborah Z., M.D.	Assistant Professor of Clinical	Medicine	Myelodysplastic Syndrome
Goldschmidt-Clermont, Pascal J., M.D.	Professor	Medicine	My research involves the role of endothelial progenitor cells (EPCs) and their potential role in aging and arterial repair, specifically collaborating with Dr. Enrique A. Mesri, Ph.D. to study KSHV/ reactive oxygen species (ROS), to provide a description of ALDH as a novel EPC marker and promising studies showing the role of EPC in pathologic angiogenesis and cancer or autoimmune disease.
Gomez-Fernandez, Carmen, M.D.	Professor	Pathology	Tumor Immunohistochemistry
Gong, Feng, Ph.D.	Associate Professor	Biochemistry & Molecular Biology	Dr. Gong's laboratory investigates how DNA repair pathways operate in eukaryotic cells to remove DNA lesions from chromatinized DNA. They use budding yeast and cultured human cancer cells to examine the roles of histone modifications and chromatin remodeling in DNA repair. In addition, they are interested in the roles of deubiquitinating enzymes in the control of p53 stability.
Gonzalzo, Mark L., M.D., Ph.D.	Professor	Urology	Not Provided
Goodman, Kenneth W., Ph.D.	Professor	Medicine	Ethical issues in health informatics; Epidemiology and public health; End-of-life care.
Goodman, Mark S., M.D.	Associate Professor of Clinical	Medicine	The research and clinical interests of Dr. Goodman focus on hematologic malignancies, solid tumors, and bone marrow transplantation.
Goodwin, W. Jarrard, M.D.	Professor	Otolaryngology	Prevention and treatment of squamous cell carcinoma of the upper aerodigestive tract. Impact of treatment decisions on the quality of life experienced by patients with head and neck cancer.

Graham, Regina M., Ph.D.	Research Assistant Professor	Neurological Surgery	Dr. Graham's research focuses upon exploring and developing novel treatments for neural based tumors. Central nervous system tumors are relatively common in the United States with an expected diagnosis of over 70,000 new cases in 2016. Primary malignant tumors continue to be a major source of cancer-related morbidity and mortality. Conventional therapy for primary brain tumors consists of surgery, radiation and chemotherapy, however following treatment the tumor often returns and the patient relapses. Recent data suggests a major reason for this is the brain tumor stem cell. This cell type is resistant to both radiotherapy and chemotherapy and is proposed to be the driving force behind tumor growth. She has generated multiple patient-derived cancer stem cell lines as a tool to examine radio- and chemo-resistance and to test the cytotoxicity of potential therapies. Dr. Graham has an interest in natural products including as curcumin, derived from the spice turmeric and withaferin A derived from withania somnifera both of which has demonstrated anti-cancer activity in brain tumors 1,2. Dr. Graham's lab has found that curcumin induces reactive oxygen species mediated reduction of STAT3 activity, decreasing the malignant characteristics of patient-derived glioblastoma stem-like cells (GSCs)3. Building on these results they have been examining the effect of novel curcumin analogs on GSCs. I am also examining the potential of repurpose existing FDA approved drugs used for the treatment of brain disorders. The use of these drugs bypasses many steps necessary for drug development thereby resulting in a shorter time frame for clinical translation. Dr. Graham is examining the anticancer potential of atypical antipsychotic drugs (APDs) for brain tumor treatment. Atypical APDs also referred to as second generation antipsychotic drugs have lower potential to cause extrapyramidal side effects. For example it was recently shown that Olanzapine inhibits glioma stem-like cell proliferation and promotes differentiation. The potential of APDs for CNS cancer treatment has not been fully explored. Brain tumors are difficult to treat in part due to the lack of effective therapies that cross the blood brain barrier (BBB). The interest in nanoparticles for cancer therapy is increasing because of their potential for drug delivery. Carbon-dots, which can be generated from natural carbon sources such as orange juice or soymilk, are non-toxic and offer a novel mechanism for drug delivery. Transferrin receptors are expressed on the BBB and tumor cells and have been used to deliver chemotherapies such as doxorubicin to brain tumor cells. She is interested in using carbon dots as a means to increase the range and number of chemotherapeutic agents that can be conjugated to proteins to target the transferrin receptor, low-density lipoprotein receptor-related protein-1 (also expressed on both the BBB and glioblastoma cells) and possibly EGFRvIII, the most common variant, leading to constitutively active EGFR in glioblastoma. It has previously been shown that transferrin conjugated carbon-dots readily crosses the BBB and in collaboration with Dr. Roger Leblanc's laboratory in the department of chemistry, they have shown that brain tumor cells treated with carbon-dot conjugated to both transferrin and doxorubicin demonstrate increased levels of nuclear doxorubicin localization and cell death compared to cells treated with doxorubicin alone4. Another area of cancer research is in the pediatric cancer neuroblastoma, which is presumed to arise from neural crest cells and has an overall five-year survival rate of about 50%. However, the prognosis for high-risk patients is extremely poor, and these include children with MYCN -amplified tumors, unfavorable
Greidinger, Eric L., M.D.	Associate Professor	Medicine	Dr. Greidinger is interested in the roles of the innate and adaptive immune systems in the induction and tissue targeting of anti-self immune responses (including autoimmunity and anti-tumor immunity). He has a longstanding collaboration with Dr. Glen Barber related to this work.
Guan, Yongtao, Ph.D.	Professor	Public Health Sciences	Point processes, spatial-temporal processes, spatial epidemiology, longitudinal data analysis
Gultelkin, Sakir, M.D.	Professor	Pathology	Diagnostic and Prognostic Marker Development for Brain Tumors
Guy, John, M.D.	Professor	Ophthalmology	Paraneoplastic Diseases of the Nervous System
Hacke, Katrin, Ph.D.	Research Assistant Professor	Cell Biology	Dr. Hacke's major interests in cancer research are focused on developing novel strategies for improving the outcome of hematopoietic stem cell transplantation (HSCT) for the treatment of hematological cancers. She is further interested in virus-associated malignancies, such as adult T-cell leukemia (HTLV-1) and HIV-1 related cancers.
Harbour, James W., M.D.	Professor	Ophthalmology	Dr. Harbour's research focuses on the use of genetic and genomic technology, cell culture experiments and genetically modified animal models to understand mechanisms of tumor progression in major forms of eye cancer, including uveal melanoma, retinoblastoma, intraocular lymphoma and others.
Hare, Joshua, M.D.	Professor	Medicine	Stem cells, cardiology regenerative medicine
Heros, Deborah, M.D.	Associate Professor	Neurology	To provide access of clinical trials to patients with primary and metastatic tumors to CNS, patients with Neurologic sequela of cancer, and to study quality of life measurements in this patient population.
Hoffman, James E., M.D.	Assistant Professor of Clinical	Medicine	Clinical research in the field of plasma cell disorders, such as amyloidosis and multiple myeloma
Holt, Gregory E., M.D., Ph.D.	Assistant Professor	Medicine	Not Provided
Hosein, Peter J., MBBS	Assistant Professor of Clinical	Medicine	Dr. Hosein is a clinical researcher focused on Gastrointestinal Cancers. He has been the principal investigator for multiple phase I and II clinical trials for patients with liver and pancreatic cancers conducted at the Sylvester Comprehensive Cancer Center. Dr. Hosein also participated as a co-investigator in national phase III clinical trials in pancreatic and colorectal cancers. His primary research interest is in neoadjuvant therapy for patients with localized pancreatic cancer, especially in patients who are unresectable to try to convert them to resectability.

Hu, Jennifer J., Ph.D.	Professor	Public Health Sciences	Considerable evidence associates DNA damage/repair with human cancer risk and progression. However, conducting a large population screening for every susceptibility gene is not yet feasible (e.g., DNA repair), and so the contribution of DNA-repair genetic variants to repair function and human cancer risk/progression is still unclear. Dr. Hu and her colleagues have evaluated the application of several DNA-repair functional assays in human cancer risk assessment. Their results show that DNA damage and repair play important roles in human carcinogenesis and progression. Since multiple DNA repair pathways are required to maintain genome integrity, and many genes are involved in different repair pathways, genetic defects in multiple DNA repair genes have additive or multiplicative effects on repair functions and human cancer risk/progression. Therefore, genotypes and phenotypes in different repair pathways must be evaluated simultaneously in order to fully assess their impact on human cancer susceptibility and progression. The functional significance of DNA-repair single nucleotide polymorphisms (SNPs) and human cancer risk/progression is currently the subject of intense study, and many challenges must be overcome. With the rapid improvement of high-throughput genotyping methods, they will be able to rapidly translate genetic susceptibility information into health behavior promotion, because genetically susceptible (sub)populations are more motivated to seek screening and intervention. However, investigating whether specific variants may alter DNA repair function, while evaluating their application as cancer susceptibility/progression markers, is crucial to reaching this goal. Dr. Hu's research program focuses on genetic polymorphisms of DNA repair in human cancer risk assessment and prevention (i.e. breast cancer, prostate cancer, and colon cancer). The central theme of her research is built on the concept that both genetic (i.e. race, family history of cancer, and genetic polymorphisms) and non-genetic factors (i.e. aging, oxidative stress, and exposure) may contribute to cancer risk and progression. They are currently conducting several cancer case-control and case-only studies to test several hypotheses as follows: To test whether human cancer risk/progression is associated with specific DNA repair SNPs with amino acid substitutions in 4 different repair pathways: (1) base excision repair (BER), (2) nucleotide excision repair (NER), (3) double strand break repair (DSBR), and (4) mismatch repair (MRR).; To evaluate whether genetic variants of DNA repair genes result in defective repair and elevated DNA damage. They will use four functional assays: the Double Mismatch Reversion (DMR) assay for BER, the DNA repair Capacity (DRC) assay for NER, the cell-cycle G2 delay assay for ionizing-radiation sensitivity, and the Comet assay for DNA damage.; To elucidate the molecular mechanisms of gene-gene and gene-environment interactions in human cancer risk and progression. Since genotypes are not modifiable, this approach aims to identify environmental risk factors that are amenable to intervention (e.g., diet, lifestyle, and other exposures), particularly in genetically susceptible (sub)populations and cancer survivors. To provide an effective etiology-based strategy for cancer prevention, the long-term objectives are: (i) to evaluate the roles of DNA repair in human cancer risk and progression, (ii) to characterize the genetic/non-genetic regulations of DNA repair in cancer susceptibility and progression, (iii) to identify high-risk populations by using validated biomarkers, and (iv) to reduce cancer risk and increase survival by targeting modifiable risk/prognostic factors.
Hu, Shasa, M.D.	Assistant Professor of Clinical	Dermatology	Skin cancer; Melanoma; Non-Hodgkin's lymphoma
Huang, Marilyn, M.D.	Assistant Professor	Obstetrics & Gynecology	Clinical trials developmental/novel therapeutics and rare tumor
Hudson, Barry I., Ph.D.	Assistant Professor	Medicine	The role of RAGE / RAGE-ligands in cancer progression and metastasis
Ikpat, Offiong F., M.D., Ph.D.	Assistant Professor	Pathology	Tumor microenvironment; Lymphoma; Breast cancer
Ikpeazu, Chukwuemeka V., M.D., Ph.D., MBA	Associate Professor	Medicine	Dr. Ikpeazu's clinical research interest is in the area of head & neck oncology, including thyroid cancers, thoracic oncology, and melanoma. He is the PI of 6 head & neck oncology clinical trials, the PI of 5 lung cancer studies, and the co-PI of a number of studies in these oncology disciplines.
Ince, Tan A., M.D., Ph.D.	Associate Professor	Pathology	Role of cell-of-origin in determining tumor phenotype; Development of culture systems for in vitro culture of primary human tissues and tumors
Ishkanian, Adrian, M.D.	Assistant Professor	Radiation Oncology	Dr. Ishkanian's major research interest is the interaction of radiation and the immune system.
Ishwaran, Hemant, Ph.D.	Professor	Public Health Sciences	Cancer Staging; Cancer Genomics; Clinical Models
Isom, Daniel G., Ph.D.	Assistant Professor	Molecular & Cellular Pharmacology	Dr. Isom's lab is pursuing two lines of research broadly related to cancer: Understanding the effect of acidosis on the (mis)function of cell-surface receptors; Mapping cancer mutations to protein structure to identify the "essential cancer proteome"
Ivan, Michael E., M.D.	Assistant Professor of Clinical	Neurological Surgery	One of the largest obstacles in the development of novel targeted therapies for glioblastomas is the limited understanding of the molecular pathogenesis underlying its invasion. Dr. Ivan and his group identify a novel GPCR subfamily that plays a major role in this process. Despite advancements in their understanding of glioma pathogenesis, the conventional treatments, including surgery, chemotherapy, and radiotherapy have remained largely stagnant. They aim to evaluate the pathway and inhibitors of glioma invasion by first analyzing the inhibitory action of PI3K inhibitors on gliomas with adhesion G-couple protein receptors. Dr. Ivan and his group believe by controlling this invasive property in gliomas they can increase survival. Therefore, once this data is obtained using current FDA approved PI3K inhibitors, their methods can be quickly translated into a clinical trial for either primary or recurrent glioblastoma expressing this novel receptor. They hope to contribute to the excellent research ongoing at the Sylvester Cancer Center and to the current investigational conversation occurring in the literature. They propose to continue to expand our brain tissue tumor bank and further pathways of glioma invasion through expanding our investigation to other pathways as well as through collaboration here at UM. Dr. Ivan and his group will also establish a centralized comprehensive database to collect patient imaging characteristics, clinical info, pathology, and genomic information. Furthermore utilizing immunohistochemistry, antibodies, and basic science investigation, they hope to create a productive brain tumor basic science lab that is the premier glioma invasion basic science research laboratory in the world.

Jagid, Jonathan R., M.D.	Assistant Professor of Clinical	Neurological Surgery	General neurosurgery; Neuro-oncology; Neuroprotection
Jahanzeb, Mohammad, M.D.	Professor of Clinical	Medicine	Hematology/oncology; Special interest in malignant disorders of the breast and lung
Jha, Amishi P., Ph.D.	Associate Professor	Psychology	Dr. Jha's primary research interests include attention, working memory, and mindfulness training. However, there are key areas in which a collaboration with the SCCC would be fruitful as it relates to prevention and survivorship. For example, they are actively involved in a project with Miami-Dade Fire Rescue investigating the effectiveness of mindfulness training on firefighter resilience, which could relate to current SCCC work with firefighters.
Jimenez Jimenez, Antonio M., M.D.	Assistant Professor	Medicine	Dr. Jimenez Jimenez's area of clinical and research interest is the use of hematopoietic stem cell transplantation (HSCT) and cell therapy for management of high-risk acute leukemias (myeloid and lymphoid) and myelodysplastic syndromes/ myeloproliferative neoplasms (MDS/MPN). Additionally, he is interested in assessing genetic factors that predict post-transplant relapse and strategies to minimize or manage this complication. As a faculty member at Sylvester Cancer Center, Dr. Jimenez Jimenez is very interested in evaluating transplant outcomes for AML/ALL/MDS patients at their institution but most importantly develop strategies to improve clinical outcomes and help transplant recipients to achieve durable remissions. During his HSCT fellowship training, Dr. Jimenez Jimenez focused on developing a combined genetic prognostic model to predict clinical outcomes in acute myeloid leukemia patients receiving consolidation with allogeneic HSCT. Findings from this project led to peer-reviewed publications and presentations and created a risk-stratification foundation to conduct and design future interventional trials in high-risk AML patients
Jiang, Xiaoyu, Ph.D.	Research Assistant Professor	Medicine	Functional study of germinal center specific gene HGAL in B cell and B cell lymphoma; Cellular signaling pathways profiling; Tumor antigen identification; Tumor and its micro-environment crosstalk; Tumor metastasis and dissemination;
Jones, Patricia D., M.D.	Assistant Professor	Medicine	Disparities in diagnosis, management and outcomes of hepatocellular carcinoma.
Jorda, Merce, M.D., Ph.D.	Professor	Pathology	Dr. Jorda's research interests include: Diagnostic molecular pathology immunohistochemistry, prostatic cancer, sarcoma and breast cancer.; Dr. Jorda's clinical interests include: Genitourinary pathology, breast pathology and soft tissue sarcomas. Dr. Jorda is interested in all clinical and anatomic pathology fields; however, her expertise is focused on clinical and anatomical aspects of genitourinary tract malignancies, breast carcinoma and soft tissue sarcomas.
Jurecic, Roland, Ph.D.	Associate Professor	Microbiology & Immunology	Pharmacological attenuation of adverse long-term effects of radio and chemotherapy on HSC function, immune responses to infection and development of hematological malignancies. Cancer stem cells. Pharmacological approaches to attenuate the progression and severity of acquired Bone Marrow Failure (BMF) and immune-mediated Aplastic Anemia. The role of E3 ubiquitin ligase RNF41 in normal hematopoiesis and leukemogenesis, e.g. Acute Promyelocytic Leukemia.
Kasahara, Noriyuki, M.D., Ph.D.	Professor	Cell Biology	Translational development of gene therapy & oncolytic virotherapy for cancer; Development of adoptive immunotherapy and genetically engineered cell vaccines for cancer; Genetic engineering of hematopoietic stem cells for post-transplant chemoselection in vivo
Kava, Bruce R., M.D.	Associate Professor of Clinical	Urology	Prostate and bladder cancer; Male and female sexual dysfunction
Khan, Wasif, Ph.D.	Professor	Microbiology & Immunology	Not Provided
Kim, Soyeon, Ph.D.	Assistant Professor	Communications	Dr. Kim's interest in cancer research centers on examining the individual- and community-level factors that influence cancer prevention efforts to reduce cancer disparities among underserved populations. Specifically, her focus is on designing and evaluating intervention messages and channel strategies that are tailored to the psychosocial and behavioral attributes of target individuals while considering contextual barriers that may also critically influence their health choices and outcomes, including neighborhood structures (e.g., demographic and socioeconomic compositions, access to healthcare facilities) and social capital (e.g., social network, support, and information flow) within the communities in which the individuals live and interact with others.
Kim, Youngmee, Ph.D.	Associate Professor	Psychology	Dr. Kim's research aims to: Examine the psychosocial, physical, and spiritual impact of cancer on the family at a national as well as community level, and; Develop programs and services to assist them in meeting their needs and to promote healthy lifestyle behaviors among cancer survivors as well as their family and friends.
King, Mary Lou, Ph.D.	Professor	Cell Biology	Molecular Developmental Biology. Study genetic pathways that determine how an embryo will be organized. Study of gene regulations to understand how organ systems are set up in the early embryo and how germ cells maintain their ability to give rise to all tissue systems. These questions are important to transplant biology. (frogs)
Kirsner, Robert, M.D.	Professor	Dermatology	Wound healing; Health care policy; Dermatoepidemiology; Cancer control and prevention.
Kobetz, Erin N., Ph.D.	Associate Professor	Medicine	Social epidemiology; Health inequality; Cancer prevention and control; Social determinants of health and health care utilization
Komanduri, Krishna, M.D.	Professor	Medicine	Immune reconstitution after stem cell transplantation (SCT); Human T cell immunity to pathogenic viruses and fungi; Graft-versus-host disease (GVHD) and graft engineering
Komotar, Ricardo J., M.D.	Assistant Professor of Clinical	Neurology	Development of individualized cancer therapy for brain tumor patients based on their genetic tumor profile.
Kruger Gray, Huw, Ph.D.	Research Assistant Professor	Cell Biology	Applications and development of flow cytometry.
Kryvenko, Oleksandr N., M.D.	Assistant Professor	Pathology	Genitourinary Cancer; Prostate cancer, active surveillance and insignificant disease are Dr. Kryvenko's particular interests.

Kumar, Naresh, Ph.D.	Associate Professor	Public Health Sciences	Time-space clustering of cancer incidence; Mobile sensors and technologies in exposure avoidance; Exposure to persistent organic pollutants and cancer risks
Lampidis, Theodore, Ph.D.	Professor	Cell Biology	Cellular Pharmacology, Cardiotoxicity, Anti-cancer Drugs. The laboratory studies cellular biology and cellular pharmacology as it relates to mechanisms of drug selectivity in certain types of cancer and cardiac-muscle cells growing in vitro.
Landgraf, Ralf, Ph.D.	Associate Professor	Biochemistry & Molecular Biology	The deregulation of ERBB (HER) receptor tyrosine kinases (EGFR, ERBB2, ERBB3 and ERBB4) is a widespread phenomenon in a broad range of cancers, but ERBB signaling has the potential to elicit cell proliferation, differentiation, migration and programmed cell death, depending on the signaling context.
Landy, Howard J., M.D.	Professor	Neurological Surgery	Stereotactic radiosurgery for brain tumors
Lechner, Suzanne C., Ph.D.	Research Associate Professor	Psychiatry	Dr. Lechner's research program focuses primarily on biobehavioral interventions for individuals with cancer. As a specialist in psychosocial oncology research, her funded projects include randomized trials of stress management and cancer wellness among populations that suffer from health disparities, such as Black women and Spanish-speaking Hispanic women. She is also interested in psychoneuroimmunology and collaborate on studies that investigate the role of aging on immune system functioning.
Leclerc, Gilles, Ph.D.	Research Assistant Professor	Pediatrics	Not Provided
Leclerc, Guy J., Ph.D.	Research Assistant Professor	Pediatrics	Not Provided
Lee, David J., Ph.D.	Professor	Public Health Sciences	Chronic disease epidemiology; Sensory impairment; Tobacco control
Lee, Stephen, Ph.D.	Professor	Biochemistry & Molecular Biology	Understanding the mechanisms involved in cancer cell adaptation to the hypoxic tumor microenvironment more precisely on long non-coding RNA and the hypoxic protein synthesis pathway that both lay dormant in normal cells but are reactivated during early cancer cell adaptation to hypoxia.
Lemmon, Sandra K., Ph.D.	Associate Professor	Molecular & Cellular Pharmacology	Dr. Lemmon's laboratory focuses on the sorting and transport of proteins along the endocytic and secretory pathways. Movement along this elaborate membrane system is achieved by the budding, transport and fusion of membrane vesicles. For years her lab has studied the structure and function of clathrin, a coat protein used for transport vesicle formation and sorting in the endocytic/endosomal system of all eukaryotic cells. Clathrin is important for down regulation of many growth-signaling receptors, and thus this pathway of internalization is fine tuned to the growth needs and environmental cues of the cell. Not surprisingly trafficking in this pathway is perturbed in various forms of cancer at the level of the growth regulating receptors themselves or at the level of the machinery that is involved in receptor sorting, vesicle formation or movement. Thus, knowledge about basic mechanisms of clathrin-mediated transport is essential to understanding the underlying basis of normal growth and cancer. Recently, they have been studying how clathrin light chain regulates a yeast homologue of mammalian Hip1 (and Hip1R), which was originally identified as a huntingtin interacting protein. Hip1-like proteins are important for clathrin-mediated endocytosis and bind directly to clathrin and actin. Hip1 was implicated in cancer by its identification in a chromosome translocation in leukemia. It is also up-regulated in other forms of cancer, including prostate and colon cancers, and Dr. Kerry Burnstein's lab has recently found that the HIP1R family member is up regulated during progression to metastasis in prostate cells. Moreover, clathrin LC is up-regulated in some cancers. Thus understanding the roles of LC and the yeast and mammalian Hip1-like proteins is providing valuable insight into regulation of endocytosis and how their perturbation can lead to cancer. In addition, her lab has been studying autophagy using yeast as a model system. Autophagy is a fundamental cellular process whereby cytosolic constituents are enveloped in a double membrane structure and delivered to degradative lysosomal compartments for turnover and recycling. Autophagy has been directly linked to cancer in different ways. Cells with a compromised autophagic response can have increased tumorigenic capacity, as they are unable to rid themselves of potentially carcinogenic components such as damaged proteins or organelles that might alter normal growth or increase mutagenesis rates. Also autophagy is used in some tumors to survive under starvation and stress conditions. Thus, autophagy is being harnessed as a novel target of cancer therapeutics. Their work seeks to discover the basic autophagy machinery and to elucidate mechanistic details of how it is regulated. This type of basic research can ultimately lead to advances in treatment of diseases such as cancer. Yeast Tools: The tools of yeast are very powerful to address various cancer related questions. They have been collaborating with Dr. Kerry Burnstein and Fangliang Zhang on their cancer related projects, taking advantage of the yeast system. They helped the Burnstein lab carry out a two-hybrid screen to identify novel Vav3 interaction proteins (Wu et al., 2013). They are assisting the Zhang lab with their studies of arginylation and stress response using the yeast system. In the past they worked with Dr. Slingerland's lab on a yeast cell cycle project. They can provide many tools and expertise to other cancer center investigators, who might like to take advantage of the yeast system. Education & Training: Dr. Lemmon is director of the MD/PhD Program. As would be expected, they have many MD/PhD students with an interest in Cancer Biology. The first CAB student was the highly
Lemmon, Vance P., Ph.D.	Professor	Neurological Surgery	Cancer vaccines; Axon Regeneration; Cell Adhesion Molecules; High Content Imaging, High Content Screening, Light Sheet Fluorescence Microscopy; Ontology Development and Informatics; Vaccine development
Lencioni, Riccardo, M.D.	Professor of Clinical	Radiology	Development of novel drug-device combinations for intra-arterial treatment of liver tumors; Synergies between interventional loco-regional therapies and systemically-active agents; Investigation of novel technologies for image-guided tumor ablation; Development of novel imaging criteria for tumor response assessment
Lesiuk, Teresa L., Ph.D.	Associate Professor	Music	Dr. Lesiuk's interest is in Music Therapy to improve attention (from 'chemobrain') and decrease symptom distress (anxiety, depression, tension) in women receiving adjuvant chemotherapy for breast cancer. Specifically, testing the efficacy of mindfulness-based music therapy to improve attention and decrease symptom distress.
Levi, Joe U., M.D., Ph.D.	Professor	Surgery	Benign and malignant diseases of the liver; Biliary tree; Pancreas (whipple procedure); Lower esophagus; Stomach, colon laparoscopic gallbladder, and other general surgeries

Levis, Silvina, M.D.	Associate Professor	Medicine	Osteoporosis/calcium disorders, geriatric endocrinology, vitamin D, frailty.
Levitt, Roy C., M.D.	Professor	Anesthesiology	Dr. Levitt's laboratory has developed a multi-disciplinary team approach to understanding genetic mechanisms of susceptibility to persistent pain, including cancer pain. They plan to use these findings to replicate the resistant phenotype with novel pharmacologic approaches to treat cancer pain and other forms of chronic pain.
Levy, Robert B., Ph.D.	Professor	Microbiology & Immunology	Dr. Levy's interests are to: Develop vaccines to apply post-transplant to eradicate minimum residual disease; Elevate anti-tumor responses in patients post-BMT without concurrent exacerbation of acute or chronic GVHD. These are discussed in further detail below.
Lew, John I., M.D.	Associate Professor	Surgery	Thyroid cancer (well differentiated including papillary, follicular); parathyroid tumors, adrenal diseases (pheochromocytoma, Cushing's and Conn's syndromes)
Lewis, John E., Ph.D.	Assistant Professor	Psychiatry	Investigations of nutrition and exercise interventions on multiple outcomes in chronic disease.
Li, Jie, M.D., Ph.D.	Assistant Professor	Dermatology	Extracellular Matrix, Angiogenesis, Metastasis, Melanoma and Squamous cell carcinoma. Role of extracellular matrix in tumor angiogenesis and tumor metastasis.
Li, Wei, Ph.D.	Research Associate Professor	Ophthalmology	Dr. Li's lab has developed a new technology of "ligandomics" to systematically identify disease-specific cellular ligands, including angiogenic factors and cancer-binding ligands. They have used this new approach identify retinoblastoma (RB)-specific angiogenic factors. He has a pending R21 grant application to NCI to investigate RB-specific endothelial ligands, including angiogenic factors. This technology can also be used to systematically identify cancer-specific ligands that selectively binds to cancer cells but not healthy cells.
Lichtenheld, Mathias G., M.D.	Associate Professor	Microbiology & Immunology	Cytotoxic Lymphocytes, Multiple Myeloma. The Lichtenheld laboratory is interested in understanding how genes essential for the effector function of lymphocytes and their malignant transformation are turned on. The specific research focus is on cytotoxic lymphocytes and multiple myeloma.
Lippman, Marc E., M.D.	Professor	Medicine	Dr. Lippman has attempted to bridge the gap between basic tumor biology and clinical application in the field of breast cancer.
Liu, Fan, Ph.D.	Research Assistant Professor	Biochemistry & Molecular Biology	Epigenetic regulation in normal and malignant hematopoiesis; Aberrant regulation of epigenetic landscape by oncogenic signaling in myeloid malignancies; Targeting abnormal epigenetic regulators in myeloid malignancies.
Liu, Zhao-Jun, M.D., Ph.D.	Research Associate Professor	Surgery	Dr. Liu's research interests focus on molecular mechanism and signaling pathways in melanoma initiation, progression, and metastasis.
Livingstone, Alan S., M.D.	Professor	Surgery	Hypercoagulability in foregut malignancies; Notch signaling, Hedge Hog, sonic signaling in esophageal cancer; Clinical trials in esophageal, pancreatic, and gastric cancer; Metabolomics in GIST tumors
Lopez, Diana, Ph.D.	Professor	Microbiology & Immunology	Breast Cancer, Tumor Progression, Cytokines. Role of cell mediated immunity in breast tumors progression focusing in the effect of tumor-derived factors and tumor induced cytokines.
Lossos, Izidore S., M.D.	Professor	Medicine	Pathogenesis, biology and immunology of lymphoma, gene expression profiling of lymphoma, molecular prognostic factors of lymphoma, function of recently cloned gene-HGAL, BCL6 in lymphoma, tumor immunology; Clinical interests: Lymphoma, hodgkin's disease, chronic lymphocytic leukemia(CLL), eye lymphoma
Lundy, Donna, Ph.D.	Professor	Otolaryngology	Head and neck cancer rehabilitation; Voice disorders; Professional voice; Swallowing disorders
Malek, Thomas, Ph.D.	Professor	Microbiology & Immunology	Dr. Malek's current work is aimed at understanding the mechanism leading to robust amplified T memory and application of this approach to tumor-immunotherapy, including in the context of checkpoint inhibitors. This research has the potential for application to other vaccines to induced cell-mediated immunity and plans are underway to extend this approach in other areas of need.
Manten, Howard, M.D.	Associate Professor	Medicine	IBD; Gastrointestinal endoscopy; Biliary endoscopy; Intestinal pseudo-obstruction
Marchetti, Floriano, M.D.	Assistant Professor of Clinical	Surgery	Colon and rectal surgery; Laparoscopic surgery; General abdominal surgery; Crohn's disease; Hemorrhoids; Polyps; Hernia; Anorectal disease; Incontinence; Ulcerative colitis
Marcus, Erin N., M.D., M.P.H	Associate Professor of Clinical	Medicine	Screening and Prevention; Health Communications; Underserved Populations; Women's Health
Markoe, Arnold, M.D.	Professor	Radiation Oncology	Radiation oncology; Experimental therapeutics
Marples, Brian, Ph.D.	Professor	Radiation Oncology	Major interests with respect to cancer are effects associated with the use of ionizing radiation, either alone or in combination with chemotherapeutic agents. Investigating the mechanisms of radiation-induced DNA damage and repair, and the cellular consequences of a failure to fully repair radiation-induced DNA damage at the cellular and tumor level. Assessment of tumor and normal tissues responses to changes in fractionation pattern of radiation delivery.
Martin, Paul, M.D.	Professor	Medicine	Hepatocellular carcinoma
Maudsley, Andrew A., Ph.D.	Professor	Radiology	Development and evaluation of advanced MRI methods for improved diagnosis of brain lesions. Application of magnetic resonance spectroscopy for improved characterization and detection of brain cancer.
Mavrides, Nicole, M.D.	Assistant Professor	Psychiatry	Not Provided
Mellon, Eric, M.D., Ph.D.	Assistant Professor of Clinical	Radiation Oncology	Dr. Mellon is a physician-scientist trained uniquely as both an M.D. radiation oncologist and a Ph.D. magnetic resonance physicist. His basic/translational interest is in the development of MRI within radiation oncology for the detection and prognosis of cancer as well as the targeting, adaptation, and evaluation of chemoradiation therapy. In addition, he has published numerous clinical studies on the application of stereotactic, hypofractionated, and intraoperative radiation therapy for pancreas, brain, prostate, and breast cancer.

Merchan, Jaime, M.D.	Associate Professor	Medicine	Dr. Merchan's research interest is in the development of novel strategies to overcome resistance to antiangiogenic agents, using syngeneic and xenograft cancer models of renal cell, breast and colon cancer. Among the strategies he is investigating are the use of novel recombinant oncolytic viral agents re-designed to target tumor stromal components, and dual targeting (stromal-vascular and tumor cells). This project is currently funded by the NIH. In addition, he is investigating the effects of metabolic targeting of tumor endothelium, as a strategy to overcome resistance mechanisms. Dr. Merchan is the current Director of the Phase I program at the University of Miami, Sylvester Comprehensive Cancer Center, and has a track record of moving projects from bench to bedside, with translational projects that led to innovative phase I trials in renal cell carcinoma and solid tumor patients.
Merchant, Nipun B., M.D.	Professor of Clinical	Surgery	Pancreatic cancer is a leading cause of cancer deaths which is associated with very poor survival rate. Dr. Merchant and his group's research focus is investigating and therapeutically targeting key cellular signaling targets in pancreatic cancer. Specifically, they are studying alterations in acquisition of therapeutic-resistance during pancreatic cancer progression, tumor-stromal interactions, epithelial-to-mesenchymal transition, alterations in immune response, and the association of mutational subsets with therapeutic efficacy in pancreatic cancer. One of their studies has already led to pre-clinical development of novel and more effective combinational therapies to overcome drug resistance.
Mesri, Enrique, Ph.D.	Associate Professor	Microbiology & Immunology	Dr. Mesri's laboratory focuses on the mechanisms of viral carcinogenesis by the Kaposi's sarcoma herpes virus (KSHV) or human herpes virus-8. KSHV is the etiological agent of Kaposi's sarcoma, the main type of cancer associated with AIDS. AIDS-KS tumors are characterized by proliferation of spindle cells and blood microvessels (angiogenesis). Elucidation of the mechanisms of viral carcinogenesis and activation of angiogenesis by KSHV is key for the identification of viral and host molecular therapeutic targets and could lead to the development of novel cures for KS. Dr. Mesri's laboratory has identified the major angiogenic activating viral oncogene of KSHV—the G protein coupled receptor (vGPCR). vGPCR is a viral gene capable of turning normal cells into cancer cells and activating the secretion of growth factors that promote blood vessel growth. More importantly, vGPCR is the only KSHV gene that can solely induce KS lesions in mice. Dr. Mesri's laboratory also recently developed a cell and animal model of virally induced KS—an important step in better understanding the mechanisms of KSHV-mediated viral carcinogenesis and the validation of viral therapeutic targets. In this experimental model, mice were induced to develop highly vascularized tumors that are infected with KSHV and that reproduce all the molecular and biological features of KS. Using this model, researchers employed a gene suppression approach that demonstrated vGPCR is essential for KS tumor growth, and therefore, a very promising therapeutic target. More recently Dr. Mesri collaborated with Dr. P. Goldschmidt in the creation of a KS mouse model based on the sole expression of an activated form of Rac. Using this and the KSHV model, they show that KS could be prevented and treated with anti-oxidants. Dr. Mesri is working on using drugs and genetic approaches to block vGPCR, in testing FDA-approved drugs that can be used to treat KS. He also is focused on understanding the virus-related or unrelated determinants of the different KS clinical forms. In addition, he is using his novel animal model to understand how KSHV and host genes mediate the paracrine mechanisms of oncogenesis induced by KSHV vGPCR. Dr. Mesri's laboratory is also currently working in new infectious models of KS, in novel anti-viral interventions based on metabolic inhibitors, and in identifying normal genetic polymorphisms that predispose to KS.
Messiah, Sarah E., Ph.D.	Research Associate Professor	Pediatrics	Obesity-related etiology, nutrition therapy, community-based cancer control and post-Tx support programs (namely park/nature-based), bariatric surgery as a cancer prevention tool
Mihaylov, Ivaylo, Ph.D.	Associate Professor	Radiation Oncology	Novel approaches in radiotherapy inverse treatment plan optimization and development of novel treatment planning paradigms for radiation therapy. Quantitative imaging application for cancer detection and prognosis.
Moffat, Frederick, M.D.	Professor	Surgery	Head and neck cancer, pelvic tumors, soft tissue sarcomas, melanoma and other skin tumors, breast cancer and GI malignancy; sentinel lymph node biopsy, tumor imaging and gamma probe detection of tumors using radio-labeled anti-tumor antibodies and receptor analogues
Moghaddass, Ramin, Ph.D.	Assistant Professor	Industrial Engineering	Dr. Moghaddass' research aims at a key underlying problem in medical decision-making, which is the issue of trust in predictive models. Dr. Moghaddass' research work will establish new interpretable statistical frameworks for cancer diagnostics and control that can help doctors leveraging large medical data sources to make better prediction, assessments, and medical decisions.
Moraes, Carlos T., Ph.D.	Professor	Neurology	Molecular biology of mitochondria, mitochondrial genetics in human diseases, the role of mitochondria in cell death and growth.
Morey Ramonell, Lluís, Ph.D.	Research Assistant Professor	Human Genetics	Dr. Morey is interested in understanding the molecular and epigenetic mechanisms altered in cancer. Moreover, his group is studying novel genetic
Morgan, Susan, Ph.D.	Professor	Communications	mutations in epigenetic factors that are known to be strongly associated to cancer. The ultimate goal of his research is to develop drugs to target
Moy, Vincent T., Ph.D.	Professor	Physiology & Biophysics	epigenetic pathways aberrantly deregulated in cancer, with the hope that these tools, and knowledge, will improve cancer therapies.
Mudad, Raja, M.D.	Assistant Professor	Medicine	Dr. Mudad's primary interest and research is in the field of solid tumor oncology and specifically lung cancer. He has conducted several clinical trials in lung, prostate, head & neck and bladder cancers.
Musselman, Dominique L., M.D.	Associate Professor	Psychiatry	Prevalence, Biology, and Treatment of Cancer-Related Neurobehavioral Syndromes

Nadji, Mehrdad, M.D.	Professor	Pathology	Dr. Nadji's primary area of interest has been the evaluation of diagnostic and predictive immunohistochemical and molecular markers of human solid neoplasms. He is also the source for pathology consultation on diagnostic problems at the national and international levels.
Nagathihalli, Nagaraj S., Ph.D.	Research Assistant Professor	Surgery	Smoking is contributing to the rising rate of pancreatic cancer (PDAC). ATM phosphorylates histone H2AX (?H2AX) upon DNA damage resulting in chemoresistance. Dr. Nagathihalli and his group study whether ATM-dependent phosphorylated H2AX has a role in smoke-induced DNA damage repair and pathogenesis of PDAC.; Nicotine and nitrosamine exposure from smoking causes pancreatic cell injury and contributes to a cascade of oncogenic events that may be contributing to the rising rate of pancreatic cancer (PDAC). Cytokines activate kinases and transcription factors including cyclic AMP response element binding (CREB) protein. CREB activation through phosphorylation regulates diverse cellular responses. They are studying whether granulocyte-macrophage colony stimulating factor (GM-CSF)-dependent phosphorylated CREB plays a role in smoking-induced pathogenesis of PDAC.
Narayanan, Govindarajan, M.D.	Professor of Clinical	Radiology	Pancreatic Cancer; Liver Cancer; Colon Cancer
Nawaz, Zafar, Ph.D.	Professor	Biochemistry & Molecular Biology	Dr. Nawaz's research focuses on mechanisms of steroid hormone receptor and coactivator action in normal and cancerous tissues, with important emphasis on estrogen receptor (ER) regulation in breast cancer and androgen receptor (AR) regulation in prostate cancer. Steroid hormones are important regulators of cell growth and influence cancer development, exerting biological effects on target tissues through intracellular receptors. Coactivators positively influence steroid hormone receptor-mediated transcription. Dr. Nawaz's research group was among the first to show that ER is ubiquitinated and that ligand binding activates rapid steroid hormone receptor proteolysis via the ubiquitin-proteasome pathway. For certain receptors such as ER and AR proteasome-dependent degradation is required for their proper functioning. Dr. Nawaz's research group went on to show that an E3 ubiquitin-protein ligase enzyme named E6-associated protein (E6-AP) and an E2 ubiquitin-conjugation enzyme, UbcH7, both act as coactivators of steroid hormone receptors. Currently, Dr. Nawaz's research group is studying the role of E6-AP and UbcH7 in the regulation of steroid hormone receptors protein stability, steroid hormone receptor-dependent gene transactivation with emphasis on breast and prostate carcinogenesis. In order to identify the genes that are either activated or repressed by E6-AP in the breast carcinoma cells, Dr. Nawaz's laboratory is utilizing the state-of-the-art technique known as chromatin immunoprecipitation followed by microarray or genome wide location analysis. The data from this analysis will give researchers a global perspective of the different functions of E6-AP, and help to better understand the specific role of E6-AP's involvement in cellular pathways in the breast. To further investigate the role of E6-AP in breast carcinogenesis and progression, Dr. Nawaz's laboratory has developed and is utilizing mammary gland specific E6-AP transgenic mice and stable in vitro cell line models. Using prostate transgenic mouse lines and in vitro stable cell lines, Dr. Nawaz's group also has shown that E6-AP influences normal prostate gland development and prostate tumorigenesis by modulating the levels and functions of AR, apoptosis, and cell signaling pathways. Using these models, Dr. Nawaz's laboratory is learning about the factors and pathways responsible for the development of breast and prostate cancers. Dr. Nawaz's group also has identified WW-domain binding protein 2 (WBP-2) as an E6-AP interacting protein, and has shown it acts as a coactivator of certain steroid hormone receptors. Presently, Dr. Nawaz's research group is examining the mechanism by which WBP-2 regulates functions of steroid hormone receptors and its role in breast carcinogenesis. All of these studies will be helpful in designing novel smart drugs for treatment of breast and prostate cancers.
Nemeroff, Charles B., M.D., Ph.D.	Professor	Psychiatry	Role of depression in cancer risk and course; Treatment of depression in cancer patients; Psychiatric effects of cancer treatment
Nguyen, Dao M., M.D.	Professor of Clinical	Surgery	Not Provided
Nimer, Stephen D., M.D.	Professor	Medicine	Clinical focus on care of patients with hematologic cancers and with bone marrow that does not function normally, such as patients with aplastic anemia and myelodysplastic syndromes; Clinical investigations of hematopoietic growth factors and immunosuppressive therapies, and transcriptional modifying therapies; Investigation of the molecular defects that underlie myeloid malignancies such as AML, myelodysplastic syndromes, or myeloproliferative neoplasms; Current broadened focus to understand how cancer cells resist chemotherapy or radiation therapy
Nouri, Keyvan, M.D.	Associate Professor	Dermatology	Melanoma; Mohs micrographic surgery; Skin cancer surgery; Reconstruction, dermatologic and laser surgery
Padgett, Kyle R., Ph.D.	Research Assistant Professor	Radiation Oncology	Dr. Padgett's interest in cancer related research center on the integration of advanced MRI techniques into cancer staging, tailoring therapy approaches and into the radiation planning process. He is involved with several studies that attempt to classify more aggressive tumors by utilizing high-field MRI systems to collect tissue perfusion data and perform tissue modeling on this data. Currently he is employing these techniques on Prostate and Head and Neck cancers. Dr. Padgett's other research interests attempt to utilize high-resolution, spatially accurate distortion free MRI datasets to replace CT scans for radiation planning. Presently he is focusing these efforts on high-dose-rate cervical brachytherapy and low-dose-rate prostate brachytherapy.
Pahwa, Savita, M.D.	Professor	Microbiology & Immunology	She is interested in AIDS and non-AIDS malignancies in HIV infected persons.
Panthaki, Zubin J., M.D.	Professor of Clinical	Surgery	Interest in cancer research skin and soft tissue tumors including: melanoma, squamous cell and basal cell, as well as breast cancer research.
Parekh, Dipen J., M.D.	Professor	Urology	Prostate cancer, bladder cancer, kidney cancer

Patin, Dennis, M.D.	Associate Professor	Anesthesiology	Therapy for pain treatment
Pearson, Matt, M.D.	Assistant Professor	Obstetrics & Gynecology	Not Provided
Pei, Xin-Hai, M.D., Ph.D.	Assistant Professor	Surgery	Dr. Pei's research is primarily focused on how cell cycle inhibitors control adult stem cells and tumorigenesis in multiple organs.
Pelaez, Daniel, Ph.D.	Assistant Professor	Ophthalmology	Orbital Tumors: Adenoid Cystic Carcinoma, Sebaceous Cell Carcinoma, Optic Nerve Glioma; Ocular tumors: Retinoblastoma
Pereira, Denise L., M.D.	Assistant Professor	Medicine	Lymphoma, bone marrow transplant, myeloma, leukemia and myeloproliferative disorders; Lymphoma and bone marrow transplant; Stem cell transplant
Perez, Alejandra T., M.D.	Associate Professor	Medicine	Breast cancer; Genetics; Disparities; Prevention
Perez-Stable, Carlos, Ph.D.	Research Associate Professor	Medicine	Experimental therapeutics in PCa preclinical models; Mechanisms of chemotherapy induced apoptosis, necrosis, and autophagy-mediated cell death in prostate cancer cells; Identification of novel anti-cancer agents that specifically kill prostate cancer cells without harming normal cells and determining their mechanisms of action; Identification of deubiquitinases that regulate the expression of androgen receptor; Mechanisms of resistance to anti-cancer agents and identifying strategies to overcome resistance
Pillai, Asha B., M.D.	Associate Professor	Pediatrics	Dr. Pillai's group is poised and keen to study several areas of interest in planned collaborations across the SCCC: Mechanisms by which specific stimulation augments cytotoxicity of human iNKT cells against hematopoietic malignancies; Whether therapeutically expanded iNKT cells kill solid tumors effectively and, if so, define ideal targets and methods to augment this effect; Molecular mechanisms by which homing of expanded iNKT cells to tumors can be augmented; Clinical translation in peri- and pre-transplant immunotherapeutics beginning with Phase 1 studies in adults and children.
Pinto, Andre, M.D.	Assistant Professor	Pathology	Not Provided
Pirl, William, M.D.	Assistant Professor	Psychiatry	Over the past fifteen years, Dr. Pirl's research has focused on improving symptoms and quality of life in patients with advanced cancer. This work includes studies examining psychological and physical symptoms; testing new interventions; and exploring practice patterns of oncology providers. He has a particular interest in the influence of depression on cancer outcomes.
Podda, Antonello, M.D.	Assistant Professor	Pediatrics	Pediatric Neuro-Oncology
Pollack, Alan, M.D., Ph.D.	Professor	Radiation Oncology	Research centers on GU malignancies with an emphasis on prostate cancer
Portelance, Lorraine, M.D.	Associate Professor	Radiation Oncology	Use of Intensity Modulated Radiation Therapy (IMRT) for the treatment of patients with gynecological and gastro-intestinal malignancies and the use of image guided high dose rate brachytherapy for patients with gynecological cancer
Potter, JoNell, Ph.D.	Associate Professor	Obstetrics & Gynecology	Human papillomavirus (HPV) prevention, detection, and treatment; The impact of HPV on women living with HIV; HPV prevention
Prado, Guillermo, Ph.D.	Professor	Public Health Sciences	Dr. Guillermo ("Willy") Prado is Leonard M. Miller Professor of Public Health Sciences and the Chief of the Division of Prevention Science and Community Health at the University of Miami Miller School of Medicine. Dr. Prado is a trained epidemiologist with expertise and experience in health disparities research, intervention science, and the application of advanced statistical methods to intervention science. Specifically, he has experience in developing, evaluating, and translating preventive interventions for addressing smoking, alcohol, and drug abuse, and HIV health disparities, and most recently obesity health disparities. His program of research on Hispanic adolescent health has been continuously funded by the NIH since the first year of his doctoral program. He has been PI, Co-PI, co-investigator, senior mentor, or consultant of HIV, substance abuse, and obesity prevention studies totaling over \$75 million of NIH and CDC funding. One of these studies is an effectiveness/Stage III study of Familias Unidas [United Families in English], one of the few preventive interventions found to be efficacious in preventing/reducing substance use, internalizing and externalizing symptoms and disorders, and HIV risk behaviors among Hispanic youth. This intervention was cited in the 2009 report as an evidence-based intervention ready for wide scale dissemination. Dr. Prado is currently the Director of Training for the NCI funded South Florida Cancer Health Disparities Center, and Co-Director of the NIDA funded Center for Prevention Implementation Methodology for Drug Abuse and Sexual Risk Behavior. He is also the Co-Chair of the Mentoring and Training Committee for this latter Center. His research has been recognized by numerous organizations, including the Society for Prevention Research, the Society for Research on Adolescence, and the National Hispanic Science Network. He was also selected by the Miami Herald, in its inaugural class, as one of the Top 20 Business Leaders and Innovators in South Florida under the age of 40 for his research in the areas of HIV and substance use among Hispanic families. Dr. Prado is a member of the National Hispanic Science Network's Steering Committee, and an Associate Editor of Prevention Science, and past Board Member of the Society for Prevention Research. He was also the 2013 Chair of the Society for Prevention Research's 21st Annual Conference and the 2013 Chair of the National Hispanic Science's Network Health Disparities Conference. Dr. Prado has been invited to present on his research at prestigious organizations including National Institutes of Health, the Centers for Disease Control and Prevention, and the Institute of Medicine.
Prilleltensky, Isaac, Ph.D.	Professor	Anesthesiology	Promotion of well-being & healthy lifestyles through online technologies and community interventions.

Punnen, Sanoj, M.D.	Assistant Professor of Clinical	Urology	Localized prostate cancer: Early detection, risk stratification, treatment and outcomes
Rai, Priyamvada, Ph.D.	Associate Professor	Medicine	Understanding how modulation of redox protective and DNA repair pathways can be used to enhance tumor suppressor responses in aggressive tumors; investigating the dual role of cell senescence in tumor suppression and tumor promotion. Dr. Rai and her lab focus is primarily on understanding how MTH1, the mammalian 8-oxodGTPase, promotes RAS-driven tumors (NSCLC, pancreatic) and how inhibition of this pathway induces cell senescence, genomic DNA damage and abrogation of oncogenic RAS signaling. This project is funded by an NIH/NCI R01. They are also evaluating how inhibition of the small thiol redox protein, thioredoxin-1, inhibits progression to castration resistant prostate cancer (CRPC). This project was till June 2015 funded by the NCI-designated Bankhead Coley Florida Biomed. The eventual goal for both projects is to test and optimize chemical inhibitors in the relevant pre-clinical cancer models.
Ramakrishnan, Sundaram, Ph.D.	Professor	Surgery	Tumor microenvironment/angiogenesis: The Ramakrishnan laboratory is interested in ovarian cancer biology and therapy. Ovarian cancer growth and metastasis is dependent on angiogenesis, they are studying regulation of angiogenesis and developing targeted therapies to inhibit the development new blood vessels. Towards this goal, their laboratory has genetically engineered endostatin by a single point mutation, P125A endostatin and improved its bioavailability by targeting to integrins overexpressed on tumor vasculature.
Ramasamy, Ranjith, M.D.	Assistant Professor	Urology	Fertility preservation in men prior to undergoing cancer therapy; Leydig stem cells in men with testicular failure secondary to cancer treatment
Ramos, Juan C., M.D.	Associate Professor	Medicine	Dr. Ramos' research involves studying the pathophysiology of viral related lymphomas with heavy focus now on HTLV-I-associated adult T-cell-leukemia-lymphoma, and developing novel targeted therapies from bench to clinic for these diseases. He is currently the principal investigator or participant on several clinical trials related to AIDS and viral related lymphomas, and peer-reviewed translational projects. Dr. Ramos led the viral oncology clinical efforts at the University of Miami, which facilitated recruitment of patients for their studies.
Rao, J. Sunil, Ph.D.	Professor	Public Health Sciences	High dimensional model selection, analysis of high throughput genomic and proteomic data, mixed model selection (linear mixed and generalized linear mixed models), predictive modeling. Quantitative Aspects of (Colon) Cancer Metastasis, High Throughput Genomic Data Modeling, Machine Learning, High Dimensional Model Selection, Mixed Model Selection, Statistical Prediction.
Reis, Isildinha, Ph.D.	Research Associate Professor	Public Health Sciences	Biostatistics. Statistical methods for design and analysis of basic-science investigations, epidemiologic studies, and clinical trials.
Ribeiro, Afonso, M.D.	Assistant Professor	Medicine	Not Provided
Richman, Stephen P., M.D.	Professor	Medicine	Drug development and behavioral studies, psychosocial aspects of pain management relating to cancer care
Riley, Richard L., Ph.D.	Professor	Microbiology & Immunology	Regulation of B Lymphocyte Development in Health and Disease. The focus of his research is to understand the regulatory mechanisms governing the formation of antibody-producing B lymphocytes. In particular, the Riley lab seeks to determine the effects of disease processes as well as normal aging upon B lymphocyte formation and function and the ramifications of abnormal B lymphocyte development upon immune competence.
Ritch, Chad R., M.D., MBA	Assistant Professor	Urology	Role of race in prostate cancer outcome Predictive biomarkers in bladder cancer Clinical management of oligometastatic prostate cancer Imaging in prostate cancer Nutrition intervention in radical cystectomy
Robbins, David J., Ph.D.	Professor	Surgery	Hedgehog and Wnt signaling; Medulloblastoma; Colorectal cancer; Lung cancer; Drug development
Rodgers, Steve, M.D., Ph.D.	Assistant Professor	Surgery	Outcomes research in thyroid cancer; Outcomes research in pancreatic cancer and other GI malignancies; Imaging techniques for preoperative localization of parathyroid tumors
Rodriguez, Maria, M.D.	Associate Professor	Pathology	Diagnostic pathology
Rojas, Claudia, M.D.	Assistant Professor	Pathology	Hepatobiliary, pancreatic and gastrointestinal disorders and neoplasms in adolescents and young adult population.
Rosa-Cunha, Isabella, M.D.	Associate Professor of Clinical	Medicine	Infectious diseases- HIV/HPV Co-infection; HIV/HPV co-infection; anal Dysplasia/anal cancer; cervical dysplasia/cervical cancer.
Rosenberg, Andrew E., M.D.	Professor	Pathology	Pathophysiology and biology of diseases of the musculoskeletal system
Rosenblatt, Joseph D., M.D.	Professor	Medicine	Development of novel immune therapy and gene therapy strategies for cancer. Potential role of recruitment of immune effector cells, using the local elaboration of both constitutive and inflammatory chemokines, such as SLC, DC-CK1 and /or RANTES respectively, on the development of an anti-tumor response
Roy, Sabita, Ph.D.	Professor	Surgery	Microbiome and tumor growth and proliferation, Pain management and cancer, Tumor Biology Angiogenesis, Microenvironment
Safren, Steven A., Ph.D.	Professor	Psychology	Adherence to cancer treatment; Mental health comorbidities (e.g. anxiety and depression); Risk factors common to cancers and HIV; Substance use and smoking in HIV and cancer

Salas, Nelson, Ph.D.	Research Assistant Professor	Biomedical Engineering	Dr. Salas' major research interest has been the minimally-invasive or non-invasive treatment of solid tumors. His graduate work focused on the optimal delivery method for laser interstitial thermotherapy of breast tumors. After graduation, his initial work focused on investigating multiple types of energy-ablative treatments for renal tumors, including radiofrequency ablation, microwave ablation, and laser interstitial thermotherapy. Dr. Salas' was one of the first presenters of irreversible electroporation in kidneys in a major conference. Upon becoming part of the Interventional Radiology department, his research interest has expanded to optimizing minimally-invasive or non-invasive treatments of tumors in various other organs, including the liver. Such treatments include those involving energy and those not involving energy, including treatment arterial embolization. Other research areas include biomedical optics and laser-tissue interactions.
Saluja, Ashok, Ph.D.	Professor	Surgery	Not Provided
Samuels, Michael A., M.D.	Associate Professor of Clinical	Radiation Oncology	Major Interests: Toxicity reduction for patients undergoing chemoradiotherapy for head and neck cancers.
Sargi, Zoukaa B., M.D.	Associate Professor of Clinical	Otolaryngology	Survivorship research; Disfigurement perception; Mental health outcomes; Smoking cessation; Education
Savaraj, Niramol, M.D.	Research Professor	Medicine	Tumor metabolism and signaling
Schally, Andrew V., Ph.D., MDHC, DSHC	Professor at Affiliated Institution	Pathology	Projects on development of new endocrine methods for treatment of various cancers were continued. Major progress has been made on all projects. The main project on cancer is centered on the synthesis and evaluation of super-potent antagonists of growth hormone-releasing hormone (GH-RH) of "Miami class" for application to treatment of many cancers. The findings on the effects of GHRH antagonists and other analogs on diverse experimental cancers and the results with GHRH agonists summarized below. Preclinical evaluations of these new GHRH antagonists in vivo have been carried out in athymic nude mice bearing xenografts of a wide variety of human cancer lines. The efficacy of the various GHRH analogs has been demonstrated in models of androgen-independent prostate cancer, pancreatic, colorectal, gastric, renal, and bladder cancer, brain tumors, lung cancer (SCLC and non-SCLC), melanoma, and hepatocellular cancer. Antitumor effects of GHRH analogs have also been demonstrated in vivo in nude mice bearing human breast cancer, including the triple negative variety, and ovarian and endometrial cancer lines, and recently in human acute myeloid leukemia and papillary thyroid cancer. The pathophysiologic basis underlying the response to GHRH antagonist is explained by the presence of GH-RH and GH-RH receptors in a variety of tumors. Studies on some cancers were also conducted with an antagonist RC-3940-II of Gastrin Releasing Peptide (GRP). The Schally lab also demonstrated that combinations of GHRH analogs with doxorubicin or taxol inhibit tumor growth better than single drugs. Therapeutic options for recurrent castration resistant prostate cancer (CRPC) are limited. Inhibition of GHRH-R represents a new compelling approach to treatment. In collaboration with Dr. Kerry Burstein Dr. Schally and his laboratory investigated effects of their potent GHRH antagonists MIA-602, MIA-606, and MIA-690 on the growth of androgen-dependent LNCaP and VCaP as well as 22Rv1 (CRPC) cells in vitro and in vivo. In vitro, MIA-602 decreased cell proliferation of 22Rv1, LNCaP, and VCaP human prostate cancer cell lines indicating direct effects of MIA-602 on GHRH-R and/or its splice variant, SV1. In vivo, MIA-602, MIA-606, and MIA-690 decreased 22Rv1 xenograft tumor volumes in mice by 63%. MIA-602 also further inhibited VCaP xenografts when combined with androgen deprivation therapy (ADT). This study demonstrates the preclinical efficacy of the GHRH antagonist MIA-602 for treatment of both androgen-dependent and independent PC. Recent publications report the localization of receptors for follicle stimulatory hormone (FSH) in tumor blood vessels of many cancers including prostate cancer. Consequently they are evaluating the importance of FSH and FSH receptors in prostate cancer. Inhibition of FSH receptors may provide a new approach to treatment of prostate cancer. FSH receptors are expressed by endothelial cells in tumors of the prostate, breast, colon, pancreas, urinary bladder, kidney, lung, liver, stomach, testis, and ovary.
Schatz, Jonathan H., M.D.	Associate Professor	Medicine	Lymphoma therapeutics: Dr. Schatz work focuses on resistance mechanisms and preclinical studies able to directly inform the design of clinical trials. Projects include exploitation of ALK oncogene overdose in anaplastic large-cell lymphoma, synergistic induction of apoptosis in high-risk diffuse large B-cell lymphoma, and novel inhibitors of protein translation initiation. Dr. Schatz's laboratory has technical expertise in the establishment and preclinical use of murine lymphoma models, focusing on genetically accurate immunocompetent systems. They also employ genomic, biochemical, molecular biologic, and advanced tissue culture techniques in understanding fundamental mechanisms of lymphomagenesis, resistance to therapy, and therapeutic target identification.
Schiff, Eugene R., M.D.	Professor	Medicine	Chronic liver disease

Schlumbrecht, Matthew P., M.D.	Associate Professor	Obstetrics & Gynecology	Fellow and resident education: Dr. Schlumbrecht is currently evaluating current didactic curricula in gynecologic oncology across programs to determine if trainees are receiving adequate instruction in the business of both private and academic medicine, including protocol development, creating and implementing research plans, understanding billing and coding, and fundamentals of practice. He is also interested in ways of evaluating surgical performance, and variables that may affect both trainee and faculty perception of skill in the operating room.; Cancer Survivorship: Survivorship should be as personalized as therapeutic oncology, with an understanding of specific survivor needs. Appreciating the psychosocial changes that occur as a result of cancer treatment, including distress, family interaction, and financial strain, and investigating how this may affect compliance with survivorship follow-up care and secondary cancer screening is important. Dr. Schlumbrecht specific interest is identifying these needs in minority groups, including women of Haitian and Latin descent, and members of the LGBT community.; Cancer Prevention: Certain types of endometrial cancer disproportionately affect Blacks. Dr. Schlumbrecht is interested in determining if there are certain ethnic groups or specific countries of origin which may put individuals at higher risk for these diseases. If so, developing novel screening methods and educational platforms will be required. He is also interested in identifying genetic risk factors for these diseases, and if expansion of genetic testing services will potentially increase detection of individuals at risk.; Quality Improvement: Polypharmacy has been associated with multiple comorbidities, and in non-GYN disease sites, has been associated with shorter survival. He is interested in investigating polypharmacy in gynecologic cancer patients, and determining if certain factors are involved with its development over the cancer continuum, with the ultimate goal of implementing a quality/safety program for medication review and communication with referring providers.
Schneiderman, Neil, Ph.D.	Professor	Psychology	Behavioral medicine research in cardiovascular disease, HIV and cancer, and CNS control of circulation and conditioning.
Schürer, Stephan C., Ph.D.	Associate Professor	Molecular & Cellular Pharmacology	Dr. Schürer's research interest in cancer is the identification and development of small molecule compounds with targeted polypharmacology profiles to improve efficacy, reduce resistance, and thus improve clinical duration; while avoiding off target liabilities. Dr. Schürer's group uses advanced computational methods such as machine learning based on very large datasets, molecular mechanics simulations and various other virtual screening methods to predict likely targets of small molecules. A recent proof of concept study they successfully identified the first dual EGFR kinase and BRD4 BET inhibitor (http://med.miami.edu/news/sylvester-researchers-use-powerful-screening-tools-to-identify-new-cancer-i).
Scott, Gwendolyn, M.D.	Professor	Pediatrics	Pediatric infectious disease and immunodeficiency syndromes; HIV infection in children. AIDS malignancies
Seay, Julia, Ph.D.	Research Assistant Professor	Medicine	Dr. Seay's primary interest is to conduct interdisciplinary research to address cancer-related health disparities. Specifically, she will conduct research which, 1) identifies psychosocial and environmental determinants of these disparities in ethnic, sexual, and gender minority groups, 2) elucidates the role of intersectionality in contributing to these disparities, and 3) develops interventions that are tailored to the unique needs of these groups to improve prevention, screening, and treatment of cancer, ultimately attenuating disparity.
Sengul, Tulay, Ph.D.	Assistant Professor	Public Health Sciences	Biostatistics; Oncology clinical trials
Serafini, Aldo, M.D.	Professor	Radiology	Dr. Serafini's research interests focus on diagnosis and treatment of cancer. His clinical expertise are in diagnostic and therapeutic uses of nuclear medicine.
Serafini, Paolo, Ph.D.	Research Assistant Professor	Microbiology & Immunology	Dr. Serafini's research interests focus principally on understanding the molecular and cellular pathways that regulate immune tolerance in physiological status as well as in disease. One of the hallmarks of a progressive tumor is activation of abnormal pathological myelopoiesis and recruitment of a heterogeneous population of myeloid cells at different maturation stage characterized by a strong suppressive activity called myeloid derived suppressor cells (MDSC). MDSCs accumulation in the periphery and at the tumor site has been associated with tumor stage and an unfavorable prognosis in many human malignancies and By the release of hematopoietic factors, growing tumors alter the "normal" myelopoiesis and induce the accumulation of MDSC and macrophages that facilitate cancer growth. These cells inhibit the anti-tumor immunity and directly promote tumor growth, angiogenesis, and metastasis. Dr. Serafini's research interests are: To disclose the molecular mechanisms by which tumor derived factors alter myelopoiesis and to identify molecular target that may restore a myeloid cell differentiation.; Determine the molecular mechanism(s) by which MDSCs restrain tumor immunity to identify new pharmaceutical targets for the generation of new checkpoint inhibitors.; Undisclosed the mechanisms by which MDSCs promote the expansion of antigen specific regulatory T cell. This goal aimed to shift the balance between effector and regulatory T cells with important application in autoimmunity and graft vs host disease.
Shembade, Noula D., Ph.D.	Assistant Professor	Microbiology & Immunology	Ubiquitination in signaling pathways that regulates inflammation and cancer
Shiekhhattar, Ramin, Ph.D.	Professor	Human Genetics	Regulation of genomic silencing and its link to cancer; Mechanism of Tumor suppressor functions; Analysis of the role of chromatin-remodeling complexes in transcription and DNA repair; Mechanism of transcriptional silencers; Role of noncoding RNA in the formation of higher order chromatin structure and in posttranscriptional silencing

Shin, Seung-Uon U., Ph.D.	Research Associate Professor	Medicine	Dr. Shin has developed novel reagents designed to target micrometastatic disease. His long term research goal has been to develop therapeutic anti-tumor antibody fusion proteins, which employ the targeting flexibility of antibodies to direct localization of biological active molecules to the tumor site, and to investigate potential mechanisms of anti-tumor efficacy. He will study mechanisms by which antibody-endostatin fusion proteins inhibit angiogenesis and/or vasculogenic mimicry (VM) which may contribute to the formation of capillary like vascular channel structures in tumors, and whether antibody-endostatin fusion proteins used will prove more effective in tumors.
Signorile, Joseph F., Ph.D.	Professor	Biochemistry & Molecular Biology	Exercise Intervention
Singal, Rakesh, M.D.	Associate Professor	Medicine	Research interests: Carcinogenesis, epigenetics, biomarkers, prostate cancer. Clinical interests: Dr. Singal's clinical interests focus on genitourinary malignancies, prostate cancer, and bladder cancer.
Sleeman, Danny, M.D.	Professor	Surgery	Not Provided
Slepek, Vladlen Z., Ph.D.	Professor	Molecular & Cellular Pharmacology	Dr. Slepek is interested in novel molecular mechanisms of signal transduction, and his primary area of studies involves heterotrimeric (large) G proteins. G protein coupled receptors (GPCRs) are the largest protein family in the body and the target of most pharmaceuticals. Dr. Slepek is excited about novel GPCRs that regulate growth or other functions of cancer cells. He would like to pursue their finding that some members of olfactory GPCR subfamily are expressed in prostate, investigating their potential as pharmacological targets.
Slingerland, Joyce M., M.D., Ph.D.	Professor	Medicine	Dr. Slingerland has a longstanding track record in funded breast cancer research. Her work has focused on cell cycle regulation and signal transduction via the TGF- β /MEK, Src and PI3K pathways. She discovered the cell cycle inhibitor p27, and her work has contributed to understanding the G1 to S phase transition and how aberrant signal transduction in cancer cells disrupts cell cycle regulators. She has investigated use of targeted therapies with MEK and Src inhibitors to reverse antiestrogen resistance in breast and ovarian cancer. Her research studies effects of oncogenic PI3K signaling on cell cycle, EMT, invasion and metastasis and stem cell function. Recent work has focused on understanding heterogeneity and hierarchies in breast cancer stem cells may contribute to resistance to anti-cancer therapies. Current funded research also investigates how VEGF, cytokines and contact with adipose tissue affects mammary stem cell self-renewal.
Slomovitz, Brian M., M.D.	Professor	Obstetrics & Gynecology	Novel therapeutics for the treatment of gynecologic malignancies; Sentinel lymph node dissection for gynecologic malignancies; Early detection of ovarian cancer
Smith, Elizabeth R., Ph.D.	Research Assistant Professor	Cell Biology	Dr. Smith's main research interests are: Growth factor-dependent mitogenesis in tumor development, specifically MAPK (ERK1/2) signaling and regulation in primary (non-transformed normal) epithelial and ES cells and the dysregulation of the kinase in ovarian and breast epithelial-derived cancers; Disabled-2 function in tumor suppression. Dab2, an adaptor protein involved in clathrin-coated vesicle endocytosis and sorting, was first identified as a mitogen-stimulated phosphoprotein differentially lost in ovarian cancer. Dr. Smith's interest is to understand the function of Dab2 related to ovarian tumor development and in epithelial-like differentiation; Cyclooxygenase involvement in reducing the risk of ovarian cancer. Her work has used a menopause-like mouse model to investigate the utility and mechanism of COX inhibition in reducing the risk of ovarian carcinoma.
Solle, Natasha S., Ph.D.	Research Assistant Professor	Medicine	Dr. Solle's primary career goal is to conduct independent research in occupational cancer. Specifically, she would like to conduct independent research in which: 1) Examines the role of occupational risk factors and exposures in cancer outcomes; 2) Identifies mechanisms that account for occupational and environmental effects on cancer incidence, stage of diagnosis, and mortality among women workers; 3) Informs workplace interventions that are tailored to the unique needs of women workers to improve prevention, screening, and treatment of diseases, ultimately attenuating cancer disparity.
St. George, Sara M.	Assistant Professor	Public Health Sciences	Obesity is associated with increased risk for various types of cancer and may be prevented by engaging in healthy lifestyle behaviors such as physical activity. Unfortunately, both adults and youth, and particularly those from ethnic minority backgrounds, are falling short in terms of meeting national recommendations for obesity-related healthy lifestyle behaviors. Dr. St. Georges's research focuses on developing and evaluating theoretically-based interventions for ethnic minority adolescents and their families which integrate multiple influential social systems (e.g., family, peers) to improve healthy lifestyle behaviors. Her goal is to develop, evaluate, and widely disseminate innovative evidence-based obesity prevention interventions that ultimately reduce chronic disease incidence and health disparities.
Stevenson, Mario, Ph.D.	Professor	Medicine	Research focuses on the viral etiology of AIDS
Stoutenberg, Mark, Ph.D.	Research Assistant Professor	Public Health Sciences	Dr. Stoutenberg's research interests focus on understanding and developing interventions to promote the use of physical activity interventions in improving outcomes in cancer survivors
Stoyanova, Radka, Ph.D.	Research Associate Professor	Radiation Oncology	Dr. Stoyanova's main interests are developing quantitative approaches for delineation and visualization of malignant tissues based on advanced in vivo imaging techniques. Correlating the imaging findings with pathology and variety of biomarkers has broaden Dr. Stoyanova's scientific interest in the area of genomics and metabolomics. Her research is closely related to the clinical needs for tumor delineation in the area of radiotherapy and the goal is to translate imaging findings in radiation treatment planning in seamless and transparent way.

Strbo, Natasa, M.D., Ph.D.	Research Assistant Professor	Microbiology & Immunology	Development of therapeutic cancer vaccines is Dr. Strbo's major interest in the cancer research. She was trained by Dr. Podack had been working with Dr. Podack for 15 years until his sudden death this past October. Dr. Strbo has been involved in the development of the secreted heat shock protein cancer vaccines since the very beginning. Currently, she is continuing gp96 cancer vaccine development by combining oxygenation with gp96-Ig vaccines, which in their preliminary studies has given impressive preliminary results.
Sussman, Daniel A., M.D.	Assistant Professor	Medicine	Colorectal cancer; Cancer prevention
Swords, Ronan T., M.D., Ph.D.	Assistant Professor	Medicine	Dr. Swords is primarily interested in translational research for myeloid neoplasms. The main goals of his research are to translate new therapies into the clinic based on collaborations with his basic science colleagues. To this end he is particularly focused on: Protein neddylation therapeutics. Disruption of the NEDD8 Activating Enzyme (NAE) in MDS and AML; Retinoic Acid Signaling in AML. Re-sensitizing the RA pathway to ATRA beyond APL; Cellular heterogeneity in AML; Minimal Residual Disease Analysis in AML; Drug Re-Purposing in AML
Takita, Cristiane, M.D.	Professor of Clinical	Radiation Oncology	Radiation oncology; Specializes in the treatment of breast cancer, lung cancer, and brain tumors
Teomete, Uygur, M.D.	Assistant Professor of Clinical	Radiology	Focus on use of computer vision for detection, diagnosis and follow up of malignancies, computer aided differentiation of benign from malignant process
Thomas, Emmanuel, M.D., Ph.D.	Research Assistant Professor	Cell Biology	Dr. Thomas' major cancer interest are Hepatocellular Carcinoma and Cholangiocarcinoma. He is interested in the mechanisms of oncogenesis, innate immune subversion of viral hepatitis associated liver cancers, and novel clinical strategies for liver cancer prevention and treatment. Dr. Thomas has a CTSI KL2 Award for Hepatocellular Carcinoma, publications on HCC and Cholangiocarcinoma, a scored NCI R01 (31%) and Dr. Thomas is a licensed house physician.
Thomas, Giovana, M.D.	Associate Professor	Otolaryngology	Head and neck surgery, research in immunology of head and neck cancer. Head & Neck Cancer, Immunotherapy. Dr. Thomas' major research goal is to conduct basic and translational studies to develop immunological approaches in the treatment of Head and Neck cancers. Elucidation of the role of the immune system in preventing progression of early Head & Neck cancers. Head and neck squamous cell carcinoma (HNSCC) of the upper aerodigestive tract is a devastating disease that impacts human communication and survival. Lack of effective immune responses is important in the progression of HNSCC, and is a prognostic marker for poor clinical response and decreased survival. The long-range goal of Dr. Thomas' research studies is to develop novel therapeutic modalities to improve anti-tumor immunity in patients with HNSCC, who continue to have disappointingly low survival rates despite aggressive treatments. The CD80/CD28 co-stimulation pathway is critical for T-cell activation and proliferation. It has been well documented in the literature that engagement of CD80 on antigen presenting cells by its receptor CD28 on T cells leads to multiple effects on immune responses in addition to increasing the synthesis of autocrine growth factors such as IL-2. To date, however, not much is known regarding the role of CD80 co-stimulatory molecules in generating anti-tumor immune responses against tumors formed from epithelial cells. Dr. Thomas' objective is to determine the role and regulation of CD80 co-stimulatory molecule during tumor progression of HNSCC. Her laboratory has previously characterized the expression of CD80 in different murine HNSCC clones derived naturally following tumor progression in the absence of T cell-mediated immunity in severe combined immune deficient (SCID) mice. One exciting feature observed during study was that HNSCC that did not express CD80 grew as progressors, while those that expressed CD80 were regressors when grown in immune competent animals. Preliminary data shows that CD80 mediated T-cell dependent anti-tumor immunity and the generation of protective immunity in animals resistant to rechallenge. In addition, they found that constitutive expression of one or more of the cytokines IL-1a, IL-6, and GM-CSF is associated with down-modulation of CD80 co-stimulatory molecule expression in oral HNSCC cells. The HNSCC cell lines that exhibit a combination of constitutive cytokine expression and low CD80 expression also exhibit increased tumorigenic potential in immune competent mice, as previously reported. Reduction of CD80 co-stimulatory molecule expression by pro-inflammatory cytokines IL-1a, IL-6, and GM-CSF has not been described previously. This decrease in CD80 expression during malignant progression of HNSCC may result in dysfunctional anti-tumor immunity, thereby promoting malignant growth. Studies are underway to determine the regulatory mechanisms of cytokine-induced down-regulation of CD80 expression and to determine the prognostic significance of its expression on tumor specimens from patients with HNSCC. Once the role and regulation of CD80 in HNSCC are understood, CD80 expression can be up-regulated pharmacologically in new and innovative approaches to increase anti-tumor immune responses for the prevention and treatment of HNSCC.
Toborek, Michal, M.D., Ph.D.	Professor	Biochemistry & Molecular Biology	The main research interest in Dr. Toborek's laboratory is focused on the involvement of the blood-brain barrier (BBB) in the pathomechanisms of cerebrovascular disorders and neurodegenerative disorders, including the development of brain metastases.
Trent, Jonathan, M.D., Ph.D.	Professor	Medicine	Sarcoma Experimental Therapeutics
Tsinoremas, Nicholas, Ph.D.	Research Professor	Medicine	Dr. Tsinoremas is focused on high throughput chemical approaches integrated with state-of-the art post-genome sequence, cell, molecular, and in vivo biology to provide a rapid and facile mechanism for enhancing the process of biomedical science and the discovery of proof-of-concept molecules

VanSaun, Michael N., Ph.D.	Research Assistant Professor	Surgery	The overall goal of Dr. VanSaun's research efforts is to identify novel therapeutics to prevent and/or reduce the mortality from pancreatic cancer. He has studied cancer for 13 years, of which he has spent the past 6 years specifically focused on liver and pancreatic cancer. Dr. VanSaun's major research interest is in understanding the role of obesity and adipokines on the development and progression of gastrointestinal cancers. The VanSaun lab is also interested in signaling pathways activated by adipokines, including ERK, STAT3, and AMPK. Screening has further identified mediators of these signaling pathways including the phosphatases SHP2, PTP1B, and DUSP as well as SOCS. All encompassing, they are interested in how adipokines modulate these mitogenic pathways to develop novel mechanisms for inhibiting cancer growth and metastasis.
Vega-Vazquez, Francisco, M.D., Ph.D.	Professor	Pathology	Translating pathophysiology into therapy in diffuse large B cell lymphoma
Velazquez, Omaid C., M.D.	Associate Professor	Surgery	Angiogenesis, vasculogenesis in tumors
Verde, Fulvia, Ph.D.	Associate Professor	Molecular & Cellular Pharmacology	Cell Proliferation, Control of Cell Shape and Establishment of Cell Polarity in Yeast. Dr Verde is interested in understanding the process of cell morphogenesis at the molecular level. The goal is to understand the molecular basis of cell morphogenesis in eukaryotic cells and its coordination to cell proliferation. Dr. Verde's research is aimed at understanding an enzyme pathway that couples cell growth with cell proliferation.
Verdun, Ramiro E., Ph.D.	Associate Professor	Medicine	The overall goal of Dr. Verdun's research is to understand how cells initiate and control the DNA damage signaling needed to repair DNA lesions or stop cell division. The study of these processes is essential for understanding how tumor cells avoid cell cycle arrest and sustain uncontrolled cell division. His research uses cell culture as well as animal models to understand how the DNA damage and repair pathways are controlled in normal and tumor B-cells. The elucidation of the molecular mechanisms involved in these processes is a crucial first step for facilitating the design of new anti-tumor or anti-aging therapies.
Villamizar Ortiz, Nestor R., M.D.	Assistant Professor of Clinical	Surgery	Lung cancer screening; Mesothelioma
Vogel, Charles, M.D.	Professor of Clinical	Medicine	Breast cancer clinical trials
Wahlestedt, Claes, M.D., Ph.D.	Professor	Psychiatry	Identifying cell cycle regulatory mechanisms that are misregulated in cancer; Cell cycle transitions in the developing nervous system
Wang, Gaofeng, Ph.D.	Associate Professor	Human Genetics	Regulation of cancer epigenome by ascorbate treatment. Identification of novel genomic and epigenomic biomarker for eye cancers.
Wang, Lily, Ph.D.	Associate Professor	Public Health Sciences	Develop effective statistical models for the analysis of high throughput cancer genomics datasets.
Wang, Yingcai, Ph.D.	Research Assistant Professor	Molecular & Cellular Pharmacology	1. p53 tumor suppressor protein. 2. P21 tumor growth inhibitor protein. 3. Gene engineered mouse model production and utilization in cancer research.
Wangpaichitr, Medhi, Ph.D.	Research Assistant Professor	Surgery	Tumor metabolism and overcoming cisplatin resistance in lung cancer.
Watkins, David I., Ph.D.	Professor	Pathology	Understand the cellular immune responses, with the goal of rationally develop effective vaccines.
Watts, Justin M., M.D.	Assistant Professor	Medicine	Clinical/Translational research in myeloid malignancies; Phase 1 clinical trials in AML & MDS
Weed, Donald T., M.D.	Professor	Otolaryngology	Tumor Immunology and the study of novel therapies to reverse tumor induced immunosuppression in head and neck squamous cell carcinoma
Weiss, Roy E., M.D., Ph.D.	Professor	Medicine	Molecular basis of differentiated thyroid cancer; Hormone replacement therapy in patients with thyroid cancer; Cancer health disparities in transsexual populations
Welsh, Catherine F., M.D.	Associate Professor	Medicine	Dr. Welsh's research focuses on the study of cell cycle progression through the G1 phase and its regulation by growth factor receptors and adhesion to the extracellular matrix. The Welsh laboratory is investigating the pathways underlying such autonomous growth in breast cancer cells and studying strategies designed to suppress these malignant properties.
Wieder, Eric D., Ph.D.	Research Associate Professor	Medicine	Flow cytometry, Stem cell transplant, Immune function, Graft-versus-host disease, Immunotherapy
Wilky, Breelyn A., M.D.	Assistant Professor	Medicine	Design and development of early phase clinical trials of novel targeted therapies for sarcoma patients
Williams, Sion L., Ph.D.	Research Assistant Professor	Neurology	Dr. Williams' work with the OCF necessitates an interest in many aspects of cancer genomics. This work covers miRNAs, gene expression profiling, mutation screening and single-cell applications. Beyond Dr Williams' service role he is very keen to develop collaborations to explore the contribution of kilobase- to megabase-scale structural variants in cancer development. Such variants are very poorly studied but tools are now becoming available at a price point suitable for discovery projects. He is also keen to investigate the role of mitochondrial DNA variants in cancer development. Dr. Williams currently collaborates on grant applications outside UMiami looking at the roles of germline variants and somatic variants in cancer.
Wilson, James N., Ph.D.	Associate Professor	Chemistry	Development of novel probes and chemical tools to investigate signaling pathways.

Wolfson, Aaron H., M.D.	Professor	Radiation Oncology	Dr. Wolfson is interested in the use of low-dose-fractionated whole abdominal radiation therapy as a chemo-sensitizer to overcome the resistance to adjuvant chemotherapy of selected patients with ovarian cancer. Furthermore, he is interested in determining the gene expression profiles for ovarian cancer patients at high risk for developing chemoresistance. Dr. Wolfson is also involved in conducting clinical trials that involve the use of various forms of radiation therapy in the treatment of gynecologic cancers. He also has a patented medical device for the delivery of brachytherapy to patients with cervical cancer. He is in the process of working with the Office of Technology Transfer to license the technology to a medical device company for commercial use as well as to update the delivery system for more widespread use.
Wuchty, Stefan, Ph.D.	Associate Professor	Center for Computational Science	Currently, Dr. Wuchty research interests are focused on complex biological/biomedical systems that entail the skillful integration and modeling of disparate data sources such as large-scale expression, genomic and molecular interaction data. In complex diseases such as different cancer types, such modeling efforts focus on the information traversal from genomic variations to dys-regulated disease genes through a network of molecular interactions. Currently, they model such a system as an electric circuit where expression correlations of interactions serve as electric resistances. Such considerations allow Dr. Wuchty's lab to identify truly causal genes for the observed dys-regulation of disease relevant genes, as well as the determination of causal paths. In particular, such an approach can be applied to any disease system for which expression, genomic and interaction data is available. As a welcomed side effect results potentially may indicate points of therapeutic intervention. Furthermore, their modeling approach is not limited to disease systems. In fact, it can also be applied to any biological system where causality plays a role.
Xu, Mingjiang, M.D., Ph.D.	Associate Professor	Biochemistry & Molecular Biology	Roles of TET2, ASXL1 and SETBP1 mutations in the pathogenesis of myeloid malignancies; Roles of TETs in the pathogenesis of lymphoid malignancies; Roles of PHF6 mutations in the pathogenesis of hematological malignancies; Development of novel therapeutics for myeloid and lymphoid malignancies; Roles of TET2, ASXL1 and PHF6 in the normal development of hematopoiesis
Xu, Xiangxi (Mike), Ph.D.	Professor	Cell Biology	Dr. Xu is interested in ovarian cancer biology and the mechanism of early embryogenesis.
Xu, Ye, M.D., Ph.D.	Research Assistant Professor	Medicine	Impact of epigenetic factors on normal and malignant hematopoiesis; The regulation of epigenetic factors on stem cell properties; Translational study of epigenetic factors in leukemia therapy
Yakoub, Danny, M.D., Ph.D.	Assistant Professor	Surgery	Metabolomic profiling of soft tissue sarcomas, GIST and GI malignancies.
Yang, Feng-Chun, M.D., Ph.D.	Professor	Biochemistry & Molecular Biology	Dr. Yang's laboratory has been focused on investigating the underlying mechanism of hematopoietic malignancies, with a specific focus on the role of NF1 and ASXL1 in the pathogenesis of myeloid malignancies. Alteration of ASXL1 gene is frequent in multiple forms of myeloid malignancies, including myelodysplastic syndrome (MDS), myeloproliferative neoplasms (MPN), MDS/MPN (such as CMML and JMML), and acute myeloid leukemia (AML). However, the role of ASXL1 in the pathogenesis of myeloid malignancies and in normal hematopoiesis remains largely unknown. Mutations in NF1 gene tumor suppressor gene cause the common genetic disorder neurofibromatosis type 1 (NF1) which is associated with a predisposition to JMML, MDS and AML. Current research projects of Dr. Yang's laboratory include: Understanding the role of ASXL1 in the pathogenesis of myeloid malignancies; Characterizing the cellular and molecular mechanisms by which inactivation of Nf1 and Asxl1 in the hematopoietic compartment and/or bone marrow niche leads to the initiation, development and/or progression of hematological malignancies. Utilizing novel murine models of ASXL1 and NF1, their studies aim to identify novel therapeutic targets and to develop rational therapies to treat myeloid malignancies.
Yang, Yidong, Ph.D.	Assistant Professor	Radiation Oncology	Precision molecular imaging of tumor models with multiple imaging modalities such as x-ray computed tomography (CT), bioluminescence tomography (BLT) and fluorescence molecular tomography (FMT); image guided precision tumor irradiation; accurate evaluation of tumor response following chemotherapy or radiotherapy.
Yechieli, Raphael L., M.D.	Assistant Professor	Radiation Oncology	Quality-of-life outcomes and its prognostic and predictive qualities; Fertility Preservation in cancer patients; Adolescents and Young Adult Cancer patients
Yepes, Monica, M.D.	Associate Professor	Radiology	Biomarkers in breast imaging; Imaging of High Risk patients; Tomosynthesis; Breast MRI; Imaging evaluation of response to treatment; Communication of imaging and results to patients
Zaw, Khin M., M.D.	Assistant Professor of Clinical	Medicine	Palliative care aspects of cancer care: pain management, prognosis, communication, patient provider relation, and impact on outcomes; Dr. Zaw's current work is mainly clinical services, program development and clinical education. No active research at this time.
Zelent, Arthur Z., Ph.D.	Research Professor	Medicine	Mechanism driven approach to combinatorial use of retinoid and/or epigenetic therapies in hematological malignancies.
Zhang, Fangliang, Ph.D.	Assistant Professor	Molecular & Cellular Pharmacology	Posttranslational protein arginylation and its role in cancer development

Zhang, Yanbin, Ph.D.	Associate Professor	Biochemistry & Molecular Biology	Dr. Zhang's research interests are to unveil the molecular mechanisms of two related DNA repair pathways, interstrand cross-link repair (ICLR) and mismatch repair (MMR). Interstrand Cross-Link Repair. ICLs are among the most toxic DNA lesions, since they covalently tether both duplex DNA strands and prevent essential DNA metabolic functions such as replication and transcription. Deficient ICL repair underlies the chromosomal instability and the hypersensitivity to DNA cross-linking agents in the cancer-prone syndromes such as Fanconi anemia, hereditary breast and ovarian cancers, and xeroderma pigmentosum. Yet, induction of ICLs is a proven strategy for the treatment of cancers and hyperproliferative disorders. It appears that ICLs represent the primary cytotoxic lesion induced by most bifunctional alkylating agents. Many clinically important cancer chemotherapeutic agents (MMC, cisplatin, psoralen, nitrogen mustard, nitrosourea and etc) are bifunctional alkylating reagents that react with both strands of the DNA helix, produce ICLs, block replication and transcription, and induce apoptosis in tumor cells. Cells can acquire resistance to such agents by repairing or tolerating these ICLs thereby compromising the therapeutic efficacy of treatment. Therefore, understanding how cells repair and tolerate ICLs will greatly facilitate the development of strategies to combat the cancer-prone diseases and to prevent drug resistance. His laboratory is interested in decoding the mechanism of ICL repair and the specific functions of Fanconi anemia proteins, nucleotide excision repair proteins, translesion synthesis proteins, homologous recombination proteins, and ubiquitination proteins in this most complicated repair pathway. His study relies on the in vitro reconstituted system with defined ICL substrates and purified proteins as well as many other molecular biology tools. Mismatch Repair. MMR corrects mismatches generated during DNA replication and escaped proofreading. Deficient MMR is the direct cause of a cancer syndrome call Lynch Syndrome or hereditary nonpolyposis colorectal cancer (HNPCC). MMR is also involved in DNA damage response, mitotic and meiotic recombination, class-switch recombination, somatic hypermutation, and triplet expansion. Dr. Zhang's laboratory is interested in the biochemistry of this important repair pathway. More specifically, they employ budding yeast, <i>Saccharomyces cerevisiae</i> , as the eukaryotic model organism to study the mechanism of MMR and to discover novel components such as DNA nucleases and helicases. Their research will be extended to human cells in order to confirm specific functions and relevance to human health of a target.
Zhang, Yu Dana, M.D.	Research Assistant Professor	Medicine	1). B regulatory cells and mechanisms in inhibition of anti-tumor immunity in mouse and human solid tumors. 2). Vasculogenic mimicry and suppression of the immune response in cancer
Zuchner, Stephan L., M.D., Ph.D.	Professor	Institute for Human Genomics	Dr. Zuchner's scientific interests lie in mapping disease genes and genomic variation that is related to disease.