Moffitt Cancer Center - Cancer Center Membership Research Interests

NAME	Academic Rank	CCSG Program	RESEARCH INTERESTS
Alexandrow, Mark, PhD	Professor	Cancer Biology and Evolution Program	Dr. Alexandrow's research is focused on two central areas: (1) the mechanisms by which positive growth factor signals or inhibitory TGF-beta signals regulate the assembly and function of pre-(DNA) Replication Complexes (preRCs) in late G1 phase, and (2) how the DNA replication machinery and preRCs utilize chromatin remodeling complexes to gain access to the DNA substrate during late G1 and S-phase.
Alsina, Melissa, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Alsina's basic research interests are in the area of multiple myeloma and how the bone marrow microenvironment influences the pathogenesis of the disease.
Altiok, Sonier, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Altiok's research focus is on primary non-small cell lung cancer (NSCLC) xenografts to study pharmacodynamic profiles of tumors to predict and assess response to targeted therapy. His work also focuses on analyzing the link between G2 checkpoint control and sensitivity to histone deacetylase inhibitor (HDACi) therapy in NSCLC. He seeks to develop methods to analyze the efficacy of targeted agents in a NSCLC model using patients' tumor tissue obtained at the time of cancer resection.
Anasetti, Claudio, MD	Professor	Immunology	Dr. Anasetti's laboratory interests include antibody targeting of the T-cell receptor and CD28 to prevent GVHD in mouse models and human transplants. Clinical interests include clinical blood and bone marrow transplantation; immunogenetics and donor selection; prevention and treatment of GVHD. Dr. Anasetti has initiated outstanding novel clinical trials to upregulate T regulatory cells and suppress allogeneic T cells via manipulation of specific signal pathways utilized by these different T cell types.
Anderson, Alexander, PhD	Professor	Cancer Biology and Evolution Program	Dr. Anderson's work focuses to understand how best to link, using mathematical models, the wealth of gene expression data that currently exist with the phenotypes that create the tumor. Thus creating a cell centered bridge between genetic change and clinical outcome.
Antonia, Scott, MD, PhD	Professor	Immunology	Dr. Antonia focuses on translational research, using his molecular biology and cellular immunology training in the development of immunotherapeutic strategies for the treatment of cancer patients. This work is organized around three themes. The first is to develop gene-modified tumor-cell vaccines using genes that potentiate anti-tumor immune responses. The second is to develop dendritic cell-based vaccines. The third is to develop strategies designed to thwart the immunosuppressive mechanisms used by tumors to evade T-cell mediated rejection.
Balducci, Lodovico, MD	Professor	Health Outcomes & Behavior Program	Dr. Balducci's research focuses on cancer and aging, which has extended to three other areas: determination of life-expectancy and active life expectancy, polypharmacy in older cancer patients, and support of the caregiver. In addition, Dr. Balducci has been involved in cooperative trials involving management of breast, lung, colorectal and prostate cancer.
Basanta Gutierrez, David, PhD	Associate Professor	Cancer Biology and Evolution Program	Dr. Basanta's research interests focus on mathematical and computational models of cancer evolution.He will be using tools already employed in theoretical ecology but will also develop new ones as needed and will make sure that they are part of an integrated research where the models are biologically inspired and validated and the results have a clinical impact.
Baz, Rachid, MD	Associate Professor	Chemical Biology and Molecular Medicine Program	Dr. Baz is a very active researcher in the field and specifically, he has an interest in clinical trials investigating new agents for patients with relapsed and refractory multiple myeloma. In addition, Dr. Baz collaborates closely with many different investigators within the Moffitt Myeloma Working Group (MMWG) and within the myeloma scientific community in general with the goal of improving outcomes of patients with plasma cell dyscrasias. For example, most of the currently approved agents in the myeloma field have been evaluated at Moffitt in phase I and II clinical trials.
Beg, Amer, PhD	Professor	Immunology	Dr. Beg's research focus is to understand the specific role played by different NF-kappa B subunits in regulating inflammatory and immune responses. These closely linked responses play a crucial role in protecting us from pathogens such as bacteria and viruses. However, impaired regulation of these responses also underlie many human ailments, including autoimmune disease and cancer.
Betts, Brian, MD	Assistant Professor	Immunology	Dr. Betts research focus is on how human T-cell signal transduction may be controlled to prevent harmful graft-versus-host disease (GVHD) and preserve beneficial graft-versus-leukemia (GVL) after allogeneic hematopoietic cell transplantation.
Booth-Jones, Margaret, PhD	Associate Professor	Health Outcomes & Behavior Program	Dr. Booth-Jones' research focuses on cognitive changes in cancer patients and their subsequent impact on psychosocial function and emotional well-being. She also is interested in the impact of these cognitive changes on caregivers and the family system. The goal of this work is to use neuropsychological and psychological knowledge and methods to identify and treat cancer-related cognitive morbidity and maximize quality of life during and after cancer care.
Brandon, Thomas, PhD	Professor	Health Outcomes & Behavior Program	Dr. Brandon has several lines of research, most of which focus on tobacco relapse and relapse prevention. One involves development and evaluation of low-cost smoking cessation and relapse prevention interventions. Dr. Brandon's team developed simple yet innovative " extended self-help" series of smoking interventions, which proved to be both clinically effective and highly cost-effective.
Bui, Marilyn, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Bui is passionate about translational research which identifies or validates diagnostic, prognostic and predictive biomarkers for cancer, especially for sarcoma and breast cancer, using methods of molecular, immunohistochemical and digital pathology.
Burnette, Pearlie, PhD	Professor	Immunology	Dr. Burnette's research focus is on Chronic lymphocytosis of large granular lymphocytes (LGL) associated with neutropenia.. The central hypothesis of Dr. Epling-Burnette and her colleagues is that the LGL cells accumulate as a result of dysregulated apoptosis and that these lymphocytes induce autoimmune destruction of myeloid and/or erythroid populations.
Chellappan, Srikumar, PhD	Professor	Cancer Biology and Evolution Program	Dr. Chellappan's research interest is to understand the mechanisms by which extra-cellular signals regulate the cell cycle machinery and how a loss of this regulation leads to oncogenesis. We focus on how the retinoblastoma protein and its downstream target E2F transcription factor mediate proliferation, differentiation and apoptosis in response to specific signaling cascades.
Chen, Jiandong, PhD	Professor	Cancer Biology and Evolution Program	Dr. Chen's research focus is on studying the p53 pathway in tumor cells. Recent work involve the p53 regulator MDMX. We areinvestigating the regulation of MDMX by ubiquitination and phosphorylation, the roles of MDMX in regulating p53 response to DNA damage and ribosomal stress, and the role of MDMX in tumor formation. We are also trying to develop inhibitors against MDM2 and MDMX as therapeutic agents. A second area of research addresses the role of SirT1 in stress response in tumor cells, regulation of SirT1 expression by E2F1, and the role of SirT1 phosphorylation.
Chen, Y. Ann, PhD	Assistant Professor	Cancer Epidemiology Program	Dr. Chen's research has been focused on developing statistical methods and computational tools to incorporate multiple omics sources, select biologically relevant markers, and predict clinical outcomes in a unified framework. Her work on Bayesian methodological development of data integration for regulatory network inference and pathway and gene selection for cancer survival prediction facilitates the identification of deregulated pathways with therapeutic relevance in subsets of human cancer.
Chen, Dung-Tsa, PhD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Chen 's areas of expertise include microarray data analysis, mixed models, survival data analysis, biomarker analysis and clinical trials. His work involves the identification of novel biomarker strategies using genomics and other emerging technologies to guide clinical decision making. He has developed a statistical outlier approach to derive a malignancy-risk gene signature in breast cancer.
Chiappor, Alberto, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Chiappori's interest includes developmental therapeutics in lung cancer, focused on immunotherapy, particularly against small cell lung cancer (SCLC). Additionally, Dr. Chiappori is pursuing development and implementation of biomarker-driven therapies in SCLC with a focus in pharmacogenomics for chemotherapy individualization and in drug development with HDAC, IGFR and PARP inhibitors.
Cleveland, John, PhD		Cancer Biology and Evolution Program	Dr. Cleveland's research has been broadly focused on the molecular pathogenesis of cancer, where he has been a leader in interrogating the regulation and role of oncogenes and tumor suppressors in controlling cancer cell growth and survival, and in defining new targets that play essential roles in the development and maintenance of cancer. In line with the mission of Moffitt, all his lab's is dedicated towards developing new agents and strategies for the prevention and treatment of cancer.
Coppola, Domenico, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Coppola's area of research focuses on the study of markers of tumor progression with special emphasis on insulin-like growth factor 1-receptor and AKT. He is investigating the effect of Ascorbyl stearate on proliferation and apoptosis of a variety of cancers (ovarian, colon, pancreas, etc.)
Cress, Douglas, PhD	Associate Professor	Cancer Biology and Evolution Program	Dr. Cress research is focused on understanding the structure, function and regulation of the E2F family expecting that this information will provide a greater understanding of cancer biology and will inform improved cancer therapeutic approaches.Tne area of focus in our lab is to understand a variety of negative feedback loops that retrain E2F1's death-inducing activity and thus limit chemotherapeutic efficacy of many drugs. A second area of focus is the identification, development and characterization of novel small molecules that target various steps of the E2F pathway. And finally, we seekto understand the mechanism that regulate the expression and biological activity of E2F4 a pro-survival member of the E2F family who's depletion can significantly increase the efficacy of number of stand chemotherapeutic drugs.

Moffitt Cancer Center - Cancer Center Membership Research Interests

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Dalton, William, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Dalton's research focus is on the role of BRCA1 in cancer and integrate statistical, structural, and functional data to aid in clinical annotation of hundreds of variants found in the population. Our group pioneered the use of functional assays to analyze mutations in the BRCA1 BRCT domain, and have developed computation models to predict their functional impact in the BRCA genes. These approaches have a significant impact in the classification of a large number of genetic variants for which cancer association could not be determined by genetic approaches alone. We have also developed interactive visualization tools to annotate BRCA variants (http://research.nhgri.nih.gov/bic/circos/).
Djulbegovic, Ben, PhD	Distinguished Profes	Health Outcomes & Behavior Program	Dr. Djulbegovic's research focus is in the areas of evidence-based medicine, decision-analysis, clinical reasoning, systematic reviews/meta-analysis and comparative effectiveness research, ethics of clinical trials, practice guidelines, outcomes research, the impact of clinical trials and the role of uncertainty in medicine.
Donovan, Kristine, PhD	Associate Professor	Health Outcomes & Behavior Program	Dr. Donovan's research focuses on the etiology and management of side effects of cancer treatment and the identification of appropriate interventions to alleviate symptoms and improve quality of life in survivorship.
Drobes, David, PhD	Professor	Health Outcomes & Behavior Program	Dr. Drobes' research program addresses cancer prevention through developing an improved understanding of risk factors and interventions for tobacco use and dependence. His work generally encompasses a broad perspective toward addictive behaviors, with a focus on genetic and environmental influences on nicotine/tobacco use, nicotine withdrawal, and combined tobacco/alcohol use.
Egan, Kathleen, PhD	Professor	Cancer Epidemiology Program	Dr. Egan is an epidemiologist with research interests in molecular epidemiology and lifestyle-directed prevention of cancer. Dr. Egan's key area of active research is the elucidation of risk factors for primary tumors of the brain (glioma and meningioma). Glioma is one of the most devastating human tumors with a largely unknow etiology.
Extermann, Martine, MD	Professor	Health Outcomes & Behavior Program	Dr. Extermann's research focus is on how BRCT domains convey signals during the cellular response to DNA Damage. We combine detailed literature curation, large scale yeast two-hybrid screening and tandem-affinity purification coupled to mass spectrometry to generate an annotated protein-protein interaction network mediated by all BRCT domains in the human proteome.
Fang, Jia, PhD	Assistant Professor	Cancer Biology and Evolution Program	Dr. Fang's research interests are focused on the molecular mechanisms of various histone modifications regulate the chromatin structure and in turn mediate different cellular processes. Particular emphasis is devoted to identify and characterize novel histone-modifying enzymes and regulatory proteins which mediate downstream effects and chromatin organization. The long term goal of this research is to understand the role of these epigenetic modifications in various diseases, particularly in human cancer.
Fernandez, Hugo, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Fernandez's research focuses on developing cell-based therapies for acute myeloid leukemia, including the development of new transplant conditioning regimens for myeloid leukemia's. He also works in the development of vaccine therapy pre- and post-transplantation for myeloid and lymphoid disorders.
Flores, Elsa, PhD	Professor	Cancer Biology and Evolution Program	Dr. Flores' research focus is to understand the overlapping and unique activities of the p53 family in human cancer using mouse models and patient derived tumors. p53 is commonly mutated in human cancer and has been difficult to target therapeutically in cancer. This is due to the complex network of genes regulated by p53 and the extensive interactions with its family members, p63 and p73. Prior to my work, very little was known about p63 and p73 function in cancer.
Forsyth, Peter, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Forsyth's research focus is in malignant, invasive glioma brain tumors. He is currently investigating several tumor-inhibiting agents in Phase I clinical trials.
Gatenby, Robert, MD	Professor	Cancer Biology and Evolution Program	Dr. Gatenby spearheaded the formation of a new program at Moffitt titled Integrative Mathematical Oncology (IMO). The IMO brings to the Cancer Center a cadre of applied mathematicians to collaborate with tumor biologists and clinical oncologists. The goal is to use the mathematics developed for other nonlinear dynamical systems to examine the physiology of a tumor incorporating factors such as phenotypic evolution, intracellular communication pathways and interactions with microenvironmental factors including therapies. The program fosters continuous interaction between mathematicians and experimentalists as they form explicit comprehensive theoretical models to serve as a framework for understanding cancer's development, progression and treatment.
Gillies, Robert, PhD	Professor	Cancer Biology and Evolution Program	Dr. Gillies' research focuses on Define & characterize deregulated pathways with therapeutic relevance in subsets of human cancers. Work in this area has examined two different pathways: 1) cell surface proteins that can be targeted by imaging or therapy, and 2) energy metabolic pathways and their sequelae. Dr. Gillies and colleagues have identified targetable cell surface receptors in pancreatic, melanoma and breast cancers.
Giuliano, Anna, PhD	Professor	Cancer Epidemiology Program	Dr. Giuliano's research focus is in the relationship between human papillomavirus (HPV) infections and cervical cancer in women, and has evolved over the past several decades to encompass HPV and penile, anal, and oral cancers in men, as well as other infectious diseases and their causal relationships with various cancers. Her work has contributed significantly to our understanding of the rate at which HPV infections are acquired and cleared, the proportion that progress to disease, and also to HPV vaccine protection against multiple diseases in women and men.
Gray, Jhanelle, MD	Associate Professor	Chemical Biology and Molecular Medicine Program	Dr. Gray's research focuses on the analysis of targeted therapies in patients with non-small cell lung cancer (NSCLC) and those at risk for lung cancer with hopes of optimizing the therapeutic benefit while minimizing the toxicity with the use of biomarker analysis to enhance the understanding of cancer biology and treatment.
Gwede, Clement, PhD	Associate Professor	Health Outcomes & Behavior Program	Dr. Gwede's research has spanned the continuum of cancer care with the following broad goals: reducing cancer disparities through community-based interventions to promote informed decision making and early detection for prostate and colorectal cancer; increasing participation of racial-ethnic minorities in clinical research; and symptom management interventions to improve quality of life during and after cancer treatment.
Han, Heather, MD	Assistant Professor	Chemical Biology and Molecular Medicine Program	Dr. Han's research interests are focused on preoperative therapy in breast cancer and racial disparities and breast cancer.
Haura, Eric, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Haura's research focuses on tyrosine kinase signaling pathways and biomarkers in lung cancer. His group demonstrated activity of SRC kinase inhibitors in lung cancer cells with activating EGFR mutations (Song et al, Cancer Res, 2006); subsequently they reported a strategy to comprehend signaling pathways active in lung cancer cells and targeted by dasatinib employing chemical proteomics to identify direct interacting proteins combined with immunoaffinity purification of tyrosine phosphorylated peptides corresponding to activated tyrosine kinases.
Heine, John, MD	Professor	Cancer Epidemiology Program	Dr. Heine's current research blends imaging physics with statistical learning methods to address unresolved issues in epidemiology with an emphasis on breast cancer risk assessments. Mammographic breast density is a significant breast cancer risk factor, not used clinically due to measurement difficulties.
Jim Heather, PhD	Associate Professor	Health Outcomes & Behavior Program	Dr. Jim's research focuses on psychosocial and behavioral aspects of cancer control. Specifically, she is interested in adjustment to diagnosis and treatment, management of symptoms and side effects, and quality of life. Because of her interest in assessment, measurement issues are a recurrent theme in her research. Dr. Jim's previous work has examined both negative outcomes of cancer diagnosis, such as distress, and positive outcomes, such as benefit-finding and meaning in life. In collaboration with colleagues at Moffitt, she is investigating cognitive functioning following treatment for breast and prostate cancer.
Kim, Jongphil, PhD	Associate Professor	Immunology	Dr. Kim's research focus includes expertise in statistics include image data analysis, survival analysis, clinical trials, multiple comparisons, and longitudinal data analysis. He has collaborated with oncologists in bone marrow transplant and lung cancer, scientists in image programs, and epidemiologists
Kim, Minjung, PhD	Assistant Professor	Cancer Biology and Evolution Program	Dr. Kim's research focus is to understand molecular events driving melanoma metastasis and to generate melanoma models based on human pathophysiology recapitulating human melanoma progressior Ultimately, we seek to translate our basic discoveries to develop molecularly targeted therapy to inhibit melanoma progression.
Kim, Sungjune, MD	Assistant Professor	Immunology	Dr. Kim's research focuses on HDAC6 as a potential mediator of tolerogenic tumor microenvironment. His research in cancer genomics is to develop molecular biomarkers to predict recurrence patterns in early stage lung cancer. He is working on validation of the genomic biomarker that predicts distant metastasis among patients with stage I adenocarcinoma of the lung.
Komrokji, Rami, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Komrokji's research interests are in Phase I and II clinical trials, focused on myelodysplastic syndromes and acute myeloid leukemia, and in the outcome of research in hematologic malignancies with a focus on myeloid neoplasms.
Koomen, John, MD	Associate Professor	Chemical Biology and Molecular Medicine Program	Dr. Koomen's research focuses on analytical chemistry development, elucidation of biological processes, and implementation of clinical assays using proteomics and quantitative mass spectrometry. Much of this work is performed using multiple reaction monitoring (MRM).

Moffitt Cancer Center - Cancer Center Membership Research Interests

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Kumar, Nagi, PhD	Professor	Cancer Epidemiology Program	Dr. Nagi Kumar's research focus is on systematically identifying and evaluating agents, mechanisms and biomarkers targeting high risk populations for cancer chemoprevention, treatment and managemen of late effects of cancer treatment.
Lancet, Jeffrey, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Lancet's work on novel therapies in AML, including soon to be approved drugs such as CPX-351 and Vosaroxin, has been published extensively in high-level journals. He also has a special interest in the treatment of older adults with leukemia.
Laronga, Christine, MD	Professor	Cancer Epidemiology Program	Dr. Laronga's research involves creating proteomic profiles for different aspects of breast diseases (race; benign vs. cancer; genetic vs. sporadic breast cancer; etc.) Patient care revolves around diagnosing and treating breast cancer in a compassionate and cutting edge manner.
Lee, M. Catherine, MD	Associate Professor	Cancer Epidemiology Program	Dr. Lee is currently co-investigator on a recently funded R21 with Dr. Susan Vadaparampil which seeks to improve genetic counseling services for patients recently diagnosed with breast cancer. She also is actively involved with her colleagues in investigating and improving fertility preservation education for providers and patients.
List, Alan, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. List's research interests include novel therapeutic agents to treat acute myeloidleukemia (AML) and myelodysplastic syndromes (MDS).
Locke, Frederick, MD	Assistant Professor	Immunology	Dr. Locke's research focus is on developing strategies to promote T cell responses against tumor associated antigens for patients with these diseases and is the principal investigator for multiple cellular immunotherapy trials.
Lush, Richard, PhD	Assistant Professor	Chemical Biology and Molecular Medicine Program	Dr. Lush's work includes directing the Clinical Trials Laboratory core facility, which facilitates and coordinate the clinical and statistical design of phase I and II trials, provides clinical data management of patients on these trials, and collects and analyzes clinical and laboratory outcome data for these studies, along with providing correlative pharmacokinetic and pharmacodynamic drug analyses for specific protocols.
Lynch, Conor, PhD	Associate Professor	Cancer Biology and Evolution Program	Dr. Lynch's research focus is to understand how metastatic prostate cancer cells interact with the bone microenvironment to establish and grow as secondary cancers using in vivo and in vitro techniques. The lab has made major inroads into defining how matrix metalloproteinases (MMPs) contribute the prostate cancer progression in bone.
Magliocco, Anthony, MD	Professor	Cancer Epidemiology Program	Dr. Magliocco's research focuses on elucidating the molecular mechanisms of cancer progression and the development of drug resistance with emphasis on breast cancer. In addition, he works on the development of clinical markers of radiotherapy resistance using cervical cancer as a model system.
Mahajan, Nupman, MD	Associate Professor	Chemical Biology and Molecular Medicine Program	Dr. Mahajan's research focuses on two tyrosine kinases, WEE1 and Ack1 (TNK2) to investigate signaling and epigenetic processes.
Malafa, Mokenge, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Malafa's research group focuses on vitamin E signaling pathways and biomarkers in pancreatic cancer. Previously his group demonstrated vitamin E succinate inhibition of oncogenic Raps signaling pathways (Donapaty et al, Molecular Cancer Therapeutics, 2006). Following up on this work, his group identified the most bioactive vitamin E analogue, delta-tocotrienol, in pancreatic cancer cells and reported that therapeutic levels of delta-tocotrienol was achieved in mice pancreas following oral administration.
Meade, Cathy, PhD	Professor	Health Outcomes & Behavior Program	Dr. Meade's research focus is on finding engaging and innovative ways to impact health disparities, producing culturally and literacy relevant cancer communications, creating sustained community-based education and outreach initiatives for medically underserved populations, and developing cancer training programs that increase the number of underrepresented
Monteiro, Alvaro, PhD	Professor	Cancer Epidemiology Program	Dr. Monteiro's research focus is the integration of epidemiological, genomic, and proteomics datasets to explore the role of genetic variation on cancer predisposition, development, and treatment.
Morse, David, PhD	Assistant Professor	Chemical Biology and Molecular Medicine Program	Dr. Morse's research projects are focused on the identification and validation of cell-surface markers for cancer, discovery of ligands or antibodies specific for binding validated markers, and the development of targeted molecular imaging probes and nanoagents for the detection and treatment of cancer. The ultimate goal of this work is to translate novel probes into the clinic for use in cancer diagnosis and staging, intraoperative margin detection and the targeted delivery of therapy.
Mulé, Janes, PhD	Professor	Immunology	Dr. Mulé and his colleagues initiated and completed two phase I clinical trials of autologous tumor lysate/keyhole limpet haemocyanin (KLH)-pulsed dendritic cells (TP-DCs) in children and adults with advanced solid tumors. The DCs, characterized as immature by phenotypic marker profiling, yielded both immunologic and very modest clinical responses. Immunologic assays revealed evidence of the induction of peripheral blood T-cell reactivity to both KLH and tumor lysates after immunization, particularly in children.
Munoz-Antonia, Teresita, PhD	Associate Professor	Health Outcomes & Behavior Program	Dr. Munoz-Antonia is interested in the mechanism underlying cancer risk conferred by common genetic variants. They have developed a conceptual framework as well as a bioinformatics and functional assay platform to systematically interrogate cancer predisposition loci revealed by GWAS of unprecedented sample sizes. This analytical framework has been successfully applied to GWAS data.
Nishihori, Taiga, MD	Assistant Professor	Chemical Biology and Molecular Medicine Program	Dr. Nishihoro's research focus is on application of novel strategies to improve stem cell transplantation outcomes in hematologic malignancies and investigation of bone marrow microenvironment to expan the understanding of how drug resistance can be overcome by targeted approaches.
Outwater, Eric, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Outwater research interests are primarily in genitourinary and gynecologic MRI. He has been the primary facilitator of physician education in RECIST measurements in the department and serves as medical director for the Image Response Assessment Team (IRAT) Core facility. He has been instrumental in securing funding for the IRAT for clinical trials using tumor metrics at Moffitt.
Padron, Eric, MD	Courtesy Assistant P	Chemical Biology and Molecular Medicine Program	Dr. Padron's research focus is on understanding the molecular and genetic pathway of chronic myelomonocytic leukemia to better design targeted agents for study in the clinic. Our previous efforts have identified the GM-CSF signaling cascade as a target for CMML therapeutics and current efforts are underway to test this in the clinic. Future work will focus on uncovering new targets for CMML specific therapies.
Park, Jong, PhD	Associate Professor	Cancer Epidemiology Program	Dr. Park and his laboratory team are interested in genetic and epigenetic variations associated with prostate cancer recurrence. In addition, Dr. Park is also interested in health disparity on risk for prostate cancer, among African American men.
Perez, Lia, PhD	Associate Professor	Chemical Biology and Molecular Medicine Program	Dr. Perez has extensive experience both in bench research and clinical investigations in the hematopoietic transplantation field. She has worked in the laboratory with contributions in the stem cell biology field including cancer stem cell biology and mechanism of environmental mediated immune resistant; she has also experienced in pre-clinical models of graft-versus-host disease (GVHD).
Permuth, Jennifer, PhD	Assistant Professor	Cancer Epidemiology Program	Dr. Permuth is a molecular epidemiologist whose research focuses on investigating the molecular basis of gastrointestinal and gynecologic malignancies. Her research primarily focuses on pancreatic cancer and certain precursor lesions known as intraductal papillary mucinous neoplasms (IPMNs).
Phelan, Catherine, PhD, MD	Associate Professor	Cancer Epidemiology Program	Dr. Phelan's main research interests are to investigate the etiology of cancer susceptibility, in the context of high, intermediate and low penetrance alleles. This research encompasses both the nuclear and mitochondrial genome in ovarian, breast and prostate cancer. There is also a focus in her research on underserved populations and cancer health disparities across populations.
Pidala, Joseph, MD, PhD	Associate Professor	Immunology	Dr. Pidala's research focuses on Acute GVHD prevention, Chronic GVHD prevention, therapy, and allied outcomes research.
Pinilla-Ibarz, Javier, MD, PhD	Associate Professor	Immunology	Dr. Pinilla-Ibarz is interested in implementing new immunotherapeutic strategies in the field of malignant hematology. The major focus of the lab has been on developing immunotherapeutic approaches for acute and chronic leukemia's as well as MDS.
Pow-Sang, Julio, MD	Professor	Cancer Biology and Evolution Program	Dr. Pow-Sang's research interests focus on molecular markers for prostate cancer behavior.
Reblin, Maija, PhD	Assistant Professor	Health Outcomes & Behavior Program	Dr. Reblin's research focuses on how the social context, including interpersonal communication, impacts the psychological and physical health of cancer family caregivers. Dr. Reblin is currently working to develop interventions leveraging existing caregiver strengths and resources to improve the caregiving experience.
Reed, Damon, MD	Associate Professor	Chemical Biology and Molecular Medicine Program	Dr. Reed's research interest focuses on the prediction of conventional chemotherapy efficacy in non-rhabdomyosarcoma soft tissue sarcomas (NRSTS) using ex vivo assays and xenograft

Moffitt Cancer Center - Cancer Center Membership Research Interests

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Rejniak, Kasia, PhD	Assistant Professor	Cancer Biology and Evolution Program	Dr. Rejniak has developed a general computational model (called IBCell model) that can represent accurately the structure of various soft tissues and mechanical transformations occurring during the tissu development and maintenance. This model has been applied to simulate the formation of abnormal folds in the human trophoblast bilayer, the development of epithelial cysts and ducts, and the growth of solid tumors, tumoral clones and various patterns of ductal carcinoma in situ. This model is ideally suited to represent small tissue portions, such as those taken from biopsy samples or those grown experimentally in the culture medium, and to simulate cell responses to various environmental factors and treatment protocols.
Reuther, Gary, PhD	Associate Professor	Cancer Biology and Evolution Program	Dr. Reuther research is focused on characterizing aberrant signaling pathways in hematological cancer in order to identify potential targets for much need therapeutic strategies. While past focus in the lab has been on acute myeloid leukemia, we are interested in understanding the significance of the JAK2-V617F mutation in a family of blood diseases termed myeloproliferative neoplasms (MPNs).
Roetzheim, Richard, PhD	Professor	Health Outcomes & Behavior Program	Dr. Roetzheim's research focus is on the causes of cancer health disparities and to develop effective interventions to reduce or eliminate health disparities. Dr. Roetzheim is conducting ACS-funded research on the impact of primary medical care on cancer outcomes. These studies are examining whether deficiencies in primary care are in part responsible for late-stage diagnosis and higher cancer mortality.
Rollison, Dana, PhD	Associate Professor	Cancer Epidemiology Program	Dr. Rollison's primary research focus is the molecular epidemiology of human polyomavirus and papillomavirus infections in relation to cancer.
Sarnaik, Amod, MD	Associate Professor	Immunology	Dr. Sarnaik's primary research interest involves investigation of novel immunotherapeutics in the treatment of melanoma. This includes tumor-based vaccines, immune-activating antibodies, targeted inhibition of oncogenic proteins, and autologous T cell therapy.
Schell, Michael, PhD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Schell has led the development of a statistical method to analyze AQUA (Automated Quantitative Analysis)-generated tissue microarray (TMA) data. The method is a 7-step procedure which works quit well for identifying and resolving technical problems when two highly correlated variables are available. This method provides a practical and efficient way of identifying an appropriate transformation (square-root, quarter-root or log), if needed, of AQUA scores that can be used to satisfy the normality assumption required by most of statistical procedures. This methodology identifies and adjusts for possible row or column spatial bias effects in a 20 x 17 rectangular plate used in the AQUA machine, which arise due to technical processing effects. The method facilitates the identification of possible outliers or leverage data points in the data due to, for instance, air bubbles. Dr. Schell is a member of the Cancer Biomarkers Study Section. He is also the statistician for a large integral-biomarker phase III multi-center clinical trial in lung cancer.
Schmit, Stephanie, PhD	Assistant Professor	Cancer Epidemiology Program	Dr. Schmit's research combines wet and dry lab approaches and statistical genetic techniques to better understand the roles of genetic susceptibility, molecular markers, and environmental factors in the development of colorectal cancer and the modulation of disease progression and outcomes. Ultimately, her work aims to inform the design of tailored screening and pharmacogenomic strategies that may improve prevention, early detection, and response to treatment for colorectal and other gastrointestinal cancers.
Sebti, Said, PhD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Sebti's lab's research interests are focused on understanding the mechanisms by which aberrant signal transduction pathways contribute to oncogenesis and developing novel anticancer drugs based on interfering with these pathways. Among the pathways studied are those involving the Ras superfamily (Ras, Rho and Ral), Kinases (Akt, RhoK and Aurora), STAT3, Bcl/Mcl, FTase/GGTase and the proteasome.
Sellers, Thomas, PhD	Professor	Cancer Epidemiology Program	Dr. Sellers' research program seeks to integrate a basic science background in nutrition and genetics with observational research methods to try to understand questions like these why less than 20% of cigarette smokers develop lung cancer and why a proven effective cancer treatment is beneficial to only a subset of patients. His studies are based on genetic analysis of germline DNA with increasing incorporation of acquired (somatic) events. The primary focus of his research is ovarian cancer, which is a devastating disease with no clear warning signs and high mortality rates. Dr. Sellers also has active collaborations that involve cancers of the breast, lung and prostate. The underlying theme is identifying inter-individual differences in cancer susceptibility and using that to inform approaches to cancer prevention, early detection and precision medicine to enhance outcomes after diagnosis. Critical to the success of this effort is team science, necessitating collaborations with geneticists, pathologists, biostatisticians, biomedical informaticists and clinicians. The Moffitt environment enables that to happen naturally.
Shain, Kenneth, MD, PhD	Assistant Professor	Chemical Biology and Molecular Medicine Program	Dr. Shain's interest includes bringing personalized therapy to the forefront of myeloma therapy involves several projects – (1) Personalized care of multiple myeloma: A) EMMA (evolutionary mathematical myeloma advisor) - a novel collaboration with critical alliance with our integrated mathematical oncology department (Dr. Robert Gatenby, Dr. Robert Gilles and Dr. Ariosto Silva among others) characterizing aspects of the evolution of drug response.
Silva, Ariosto, PhD	Assistant Professor	Cancer Biology and Evolution Program	Dr. Silva's research focus is on the evolution of tumor invasiveness and adaptive tumor microenvironment particularly in multiple myeloma; cancer metabolism.
Smalley, Keiran, PhD	Professor	Chemical Biology and Molecular Medicine Program	The Smalley's research focus is to develop personalized therapies for melanoma, the deadliest form of skin cancer. Over the past few years our lab has used genetic and mutational profiling data to define two new sub-groups of melanoma and have identified therapeutic strategies for each.
Soliman, Hatem, MD	Assistant Professor	Immunology	Dr. Soliman's research focuses on the development of new immunotherapy treatments (vaccines, immune modulating drugs) in the treatment of breast cancer.
Sondak, Vernon, MD	Professor	Immunology	The translational research interest of Dr. Sondak is in allogeneic tumor vaccines for patients with intermediate-risk melanoma. He has focused on evaluation of the Melacine allogeneic vaccine in patients with intermediate- thickness, node-negative melanoma and has designed phase II and III trials using a lysate of allogeneic melanoma cell lines in the postoperative adjuvant therapy setting and, in some instances, in the preoperative setting to monitor immune responses in the sentinel lymph nodes and systemically. A series of randomized phase II trials involving melanoma patients using different vaccination strategies (for instance, comparing adjuvants such as DETOX versus CpG oligonucleotides, etc.) are evaluated in sequence to optimize the vaccination process and identify immunologic endpoints and biologic correlates of response.
Strosberg, Jonathan, MD	Associate Professor	Chemical Biology and Molecular Medicine Program	Dr. Strosberg's interests center on development and implementation of biomarker-driven therapeutics into patient-based therapeutic trials. Collaborative research led to the identification of new molecular prognostic markers (including palladin and RUNX1T1) associated with malignant progression of pancreatic neuroendocrine tumors.
Sullivan, Daniel	Professor	Chemical Biology and Molecular Medicine Program	Research in Dr. Sullivan's laboratory has focused on defining the mechanisms of drug resistance to inhibitors of mammalian DNA topoisomerase I, II alpha, and II beta. These enzymes are the targets of several commonly used anti-tumor agents, including etoposide, doxorubicin, mitoxantrone, topotecan and irinotecan. Our lab is also involved in several translational research studies, which aim to define the role of quantitative and qualitative alterations in topoisomerases in determining cellular sensitivity to topoisomerase inhibitors in vivo.
Tanvetyanon, Tawee, MD, PhD	Associate Professor	Health Outcomes & Behavior Program	Dr. Tanvetyanon focuses his research on the improvement of supportive care and patient quality of life. His main interest lies in overcoming multi-faceted problems pertaining to the administration of current available therapies including chemotherapy, radiotherapy, surgery, and supportive care. His research has investigated symptoms associated with cancer and its treatment.
Tao, Jianguo, MD, PhD	Professor	Cancer Biology and Evolution Program	Dr. Tao's laboratory focuses on: 1) functional genomics and biomarkers of lymphoma; including microRNA expression profile in selected lymphoma subtypes (mantle cell lymphoma and viral-associated lymphomas) to determine possible involvement of microRNAs in the pathogenesis of non-Hodgkin lymphoma and their possible role in diagnosis, prognosis and therapeutic target discovery, 2) microenvironment regulation of molecular pathogenesis of lymphoma; his laboratory is studying the normal development of germinal center B cells.
Teer, Jamie, PhD	Assistant Professor	Cancer Biology and Evolution Program	Dr. Teer's research focus is on developing methods to analyze, interpret and visualize massively-parallel sequencing information in cancer genetics. This includes developing and applying computational methods and graphical tools to better detect genetic variations from sequencing data, understand the functional context of sequence changes, and visualize the results of large-scale genomics studies.
Torres-Roca, Javier, MD	Associate Professor	Chemical Biology and Molecular Medicine Program	Dr. Torres-Roca's research focus is in the development of a systems level understanding of the biological networks that regulate radiosensitivity. Current efforts in the laboratory are aimed at integrating experimentally quantified cellular and clonogenic heterogeneity into computer-based virtual models of the clonogenic assay.
Trotti, Andy, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Trotti is recognized for expertise in head and neck and cutaneous malignancies, the adverse effects of cancer treatment, and HPV (Human Papilloma Virus) - related oral cancers. Dr. Trotti is currently leading the largest international trial testing a reduced toxicity agent (cetuximab) in HPV-related oral cancers.
Vadaparampil, Susan, PhD	Professor	Health Outcomes & Behavior Program	Dr. Vadaparampil's research uses a combination of behavioral science, epidemiology, health services, and clinical perspectives to understand and improve dissemination and uptake of new cancer prevention and control innovations including genetic testing for hereditary cancer susceptibility and HPV vaccination.

Moffitt Cancer Center - Cancer Center Membership Research Interests

NAME	Academic Rank	CCSG Program	RESEARCH INTERESTS
Wei, Sheng, PhD	Professor	Immunology	Dr. Wei's research is focused on improving the functional status of neutrophils and analyzing human neutrophil activation and signaling pathways that control the neutrophil's biological functions.
Wenham, Wenham, MD	Associate Professor	Chemical Biology and Molecular Medicine Program	Dr. Wenham's research involves identifying and testing novel biological agents and chemotherapeutics for gynecologic cancers. The future of gynecologic oncology is exciting as the rapid pace of translational research is changing the outcome and quality of life for patients.
Wright, Kenneth, PhD	Professor	Immunology	Research in Dr. Wrights laboratory has focused on the inhibitors of apoptosis that might directly mediate survival of these cells and contribute to their resistance to Fas signaling. They have identified several survival pathways that are chronically active in patients with these diseases and contribute to accumulation of LGL cells.
Zager, Jonathan, MD	Professor	Chemical Biology and Molecular Medicine Program	Dr. Zager's research focus is in minimally invasive regionally therapy such as isolated limb infusions (ILI) for extremity in transit or recurrent melanoma. ILIs for limb threatening unresectable sarcomas as well as percutaneous hepatic perfusions for unresectable metastatic melanoma to the liver. Dr. Zager has also developed an interest in intraoperative PET probe directed surgery for difficult to localize metastatic lesions.