



CANCER RESEARCH AT SYLVESTER (FACCA ATTENDEES)

Martin Andreansky, MD, PhD

Department: Medicine

Email: MAndreansky@med.miami.edu

- *Pediatric Bone Marrow Transplant*
 - *Stem cell transplantation for: Leukemia, Lymphoma, Marrow Aplasia Syndromes, Myelodysplastic Syndrome, Brain Tumors, Neuroblastoma, Wilms Tumor, Non-malignant Conditions, Sickle Cell Disease, Thalassemia, Hemoglobin Disorders*
 - *Graft versus Host Disease*
 - *Conditioning Regimens*
 - *Infections in Stem Cell Transplantation*
 - *Endothelial Damage in Transplant Patients*
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Kerry L. Burnstein, PhD

Department: Molecular & Cellular Pharmacology

Research Program: Tumor Biology

Email: kburnstein@med.miami.edu

- *The Burnstein lab studies steroid hormone action and mechanisms of intracellular cross talk particularly between androgen receptors and their variants and other signaling pathways in prostate cancer. Our research efforts seek to understand how these pathways contribute to therapeutic resistance and to exploit this interplay therapeutically.*
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Olveen Carrasquillo, MD, MPH

Department: Medicine

Research Program: Cancer Control

Email: OCarrasquillo@med.miami.edu

- *Dr. Carrasquillo's major interests include: Cancer disparities; Community healthcare workers; Community based participatory research; Quality improvement; Health services research; Cervical & colon cancer.*
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Wael El-Rifai, PhD

Department: Surgery
Research Program: Tumor Biology
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- *Dr. El-Rifai research utilizes advanced molecular functional genomic approaches for the discovery of novel genes and networks for a better understanding of the process of carcinogenesis with a prospective translational end points towards the development of novel therapeutic approaches in gastric and esophageal cancers.*
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Sophia George, PhD

Department: Obstetrics & Gynecology
Research Program: Cancer Control
Email: sophia.george@med.miami.edu

- *The George Lab conducts research to understand the precursor lesion in the Fallopian tube and pathogenesis/progression to ovarian cancer; focused on primary prevention through identification of high-risk individuals and determine factors in hereditary breast and ovarian cancer syndrome carcinogenesis that promote chemotherapy resistance and account for survival differences in patients.*
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Regina Graham, PhD

Department: Neurological Surgery
Email: rgraham@med.miami.edu

- *Dr. Graham's research focuses on brain tumors and neuroblastoma. She seeks to understanding the role of cancer stem-like cells in treatment resistance and finding novel ways to target these cells, including natural products like curcumin and withaferin A. Also she is exploring the repositioning of FDA approved drugs such as antipsychotics for cancer treatment and is interested in integrating nano particles such as carbon dots, in cancer diagnosis and treatment.*
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J. William Harbour, MD

Department: Ophthalmology
Research Program: Cancer Epigenetics
Email: harbour@med.miami.edu

- *Dr. Harbour's research focuses on the use of genetic and genomic technology, cell culture experiments and genetically modified experimental models to understand mechanisms of tumor progression in major forms of eye cancer, including uveal melanoma, retinoblastoma, intraocular lymphoma and others. All of these cancers are highly aggressive and frequently lethal.*
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Barry I. Hudson, MD

Department: Medicine
Research Program: Tumor Biology
Email: bhudson@med.miami.edu

- *The Dr. Hudson lab's research is focused on understanding the inflammatory mechanisms underlying breast cancer and the ultimate translation of these basic observations to human clinical studies. His research efforts have focused on the inflammatory role of the Receptor for Advanced Glycation End-products (RAGE) and its ligands (AGEs, s100s and HMGB1) in diabetes, obesity, and breast cancer.*
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Patricia Jones, MD

Department: Medicine
Research Program: Cancer Control
Email: pdjones@med.miami.edu

- *Disparities in diagnosis, management and outcomes of hepatocellular carcinoma.*
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Erin Kobetz, PhD, MPH

Department: Medicine
Research Program: Cancer Control
Email: EKobetz@med.miami.edu

- *Dr. Kobetz employs participatory methodologies to engage diverse stakeholders in translational science to understand and address cancer disparities. She identifies multilevel determinants of disease risk, including HPV acquisition, and then develops innovative interventions to address such factors and their associated influence on cancer onset and progression.*
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Nipun Merchant, MD

Department: Surgery
Research Program: Tumor Biology
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- *The Merchant lab investigates how alterations in RAS and STAT3 signaling pathways affect the tumor stroma and immune microenvironment in pancreatic cancer. Using genetically engineered mouse models and 3-dimensional in vitro models, we study how cross-talk between these pathways in the tumor and stroma affect epithelial-to-mesenchymal transition, changes in the tumor microenvironment and alterations in immune response to enhance therapeutic efficacy in pancreatic cancer.*
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Stephen D. Nimer, MD

Center Director Department: Medicine
Research Program: Cancer Epigenetics
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- The Nimer laboratory has been studying the transcriptional regulation of hematopoiesis, with the aim of understanding how the normal processes of stem cell self-renewal and differentiation are regulated and how these processes become aberrant in acute leukemia. We have been studying the AML1-ETO leukemia-promoting oncogene, defining its ability to promote stem cell self-renewal and deciphering how it regulates gene expression. We are also studying the role of epigenetic enzymes, including the protein arginine methyltransferases CARM1 and PRMT5 in normal and malignant hematopoiesis. Both CARM1 and PRMT5 can block hematopoietic stem cell (HSC) differentiation; thus they may be targeted as part of an epigenetic-based therapeutic strategy. Other work in the lab has identified a novel network of proteins, including p53, that regulate HSC quiescence and also sensitivity to chemotherapy and radiation therapy. Overall, my lab is focused on identifying novel ways to target hematologic cancers or make them more susceptible to existing therapies.*
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Alan Pollack, MD, PhD

Department: Radiation Oncology
Research Program: Cancer Control
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- Dr. Pollack's research interests center on the therapeutic management of prostate cancer, with an emphasis on applying biomarkers, including quantitative imaging, tissue genomic, and liquid biopsy markers, to identify prostate characteristics that determine outcome. These precision medicine studies are being applied to the selection of prostate cancer patients across a wide spectrum of disease, including candidates for active surveillance, a group that is a focus of his NCI funding. Dr. Pollack also co-leads the NCI consortium on imaging and biomarkers, and the genitourinary translational research program in the NRG cooperative group. He is an active clinical trialist who has lead Phase I, II, and III studies. A key emphasis of ongoing trials and his laboratory is the integration of quantitative multiparametric MRI to better risk classify habitats in the prostate, assess tumor heterogeneity, direct prostate biopsies, and target radiotherapy delivery.*
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Sabita Roy, PhD

Department: Surgery
Research Program: Tumor Biology
Email: Sabita.Roy@miami.edu

- Microbiome and tumor growth and proliferation, Pain management and cancer, Tumor Biology
Angiogenesis, Microenvironment*
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Ashok Saluja, PhD

Department: Surgery
Research Program: Tumor Biology
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- *Dr. Saluja's group demonstrated that HSP70 is overexpressed in pancreatic cancer cells and that its inhibition leads to apoptotic cell death. Inhibiting HSP70 expression is also very effective at reducing the growth of pancreatic tumors in orthotopic models of pancreatic cancer, where it markedly reduced loco-regional spread (Cancer Res).*
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Jonathan Schatz, MD

Department: Medicine
Research Program: Tumor Biology
Email: jschatz@med.miami.edu

- *The Schatz lab is interested in understanding mechanisms of resistance to therapy in cancer, with a particular focus on the non-Hodgkin lymphomas. Diseases in this diverse group of more than 50 cancer diagnoses derive from B and T lymphocytes, which regulate and help carry out immune function. While many lymphomas may be curable or manageable through a series of treatments over a period of years, more than 25,000 Americans die annually from these diseases. By understanding the pathways within lymphoma cells that drive them to become resistant to treatment, we lay the groundwork for novel treatment approaches suitable for evaluation in clinical trials.*
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Jonathan Trent, MD, PhD

Department: Medicine
Research Program: Tumor Biology
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- *Dr. Trent's interests are in the clinical and translational research of sarcomas, direct care of sarcoma patients, and education about sarcoma and patient-oriented research. His research focuses on the discovery and detection of biomarkers for metastasis, progression and resistance to therapy in gastrointestinal stromal tumor (GIST) and other sarcomas including chondrosarcoma, dermatofibrosarcoma protuberans, myxoid liposarcoma, perivascular endothelial cell sarcoma (PEComa), angiomyolipoma, rhabdomyosarcoma and synovial sarcoma. Dr. Trent's research studies involve the use of novel preoperative/postoperative clinical trials, prospectively acquired tumor tissue, cell lines, archival tissue, as well as collaborations with disciplines such as the genomics facility, surgical oncology, pathology, radiology and interventional radiology.*
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Barbara Vance, PhD, CRA

Department: Sylvester Comprehensive Cancer Center
Email: bvance@med.miami.edu

- *Assistant Vice President and Associate Director for Administration*
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Eric D. Wieder, PhD

Department: Medicine

Email: ewieder@med.miami.edu

- *Flow cytometry*
 - *Stem cell transplant*
 - *Immune function*
 - *Graft-versus-host disease*
 - *Immunotherapy Roles of TET2, ASXL1 and PHF6 in the normal development of hematopoiesis*
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Mingjiang Xu, MD, PhD

Department: Biochemistry & Molecular Biology

Research Program: Cancer Epigenetics

Email: mxx51@miami.edu

- *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*
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