Name	Primary (& Secondary) Appointment (s)	Research Interest
Alvarez, James / Ph.D.	Pharmacology and Cancer Biology	The origins and consequences of intratumor heterogeneity and dormancy.
Andrews, Nancy / M.D., Ph.D.	Pediatrics (Pharmacology and Cancer Biology)	Mammalian iron homeostasis and human iron diseases.
Bennett, G. Vann / M.D., Ph.D.	Cell Biology	Molecular organization of plasma membranes in differentiated vertebrate cells and to determine the role of such cellular-level structure in normal physiology and disease.
Blobe, Gerard / M.D., Ph.D.	Medicine (Pharmacology and Cancer Biology)	Role of transforming growth factor-beta (TGF-beta) superfamily signaling pathways in cancer biology.
Caron, Marc / Ph.D.	Cell Biology	Molecular and cellular mechanisms by which G protein-coupled receptors control normal and abnormal physiological functions.
Chi, Jen-Tsan Ashley / M.D., Ph.D.	Molecular Genetics and Microbiology (Institute of Genome, Science and Policy)	The use of genomic tools to enhance the understanding of human diseases and disease-related biological questions.
Counter, Christopher / Ph.D.	Pharmacology and Cancer Biology (Radiation Oncology)	Molecular analysis of Ras signaling in cancer.
Di Talia, Stefano / Ph.D.	Cell Biology	Cell cycle regulation during embryonic development and tissue regeneration
Diehl, Anna Mae / M.D.	Medicine	Liver injury and repair.
Floyd, Scott / M.D., Ph.D.	Radiation Oncology (Pharmacology and Cancer Biology)	Epigenetic modifiers and effects on the DNA damage response.
Fox, Donald/ Ph.D.	Pharmacology and Cancer Biology	We study polyploidy- the acquisition of extra genome sets. Using Drosophila genetics, we study how polyploidy can both destabilize the genome during mitosis and promote tissue repair when mitosis is impaired.
Goetz, Sarah C. / Ph.D.	Pharmacology and Cancer Biology	The role of primary cilia-mediated cell signaling in development and disease.
Gromeier, Matthias / Ph.D.	Surgery-Neuro-Oncology (Medicine, Molecular Genetics and Microbiology)	Mechanisms of protein synthesis regulation and ways to exploit abnormal signal transduction to translation machinery for cancer treatment.
Haase, Steve / Ph.D.	Biology	Mechanisms that maintain the ordered program of events during the cell division cycle.

Name	Primary (& Secondary) Appointment (s)	Research Interest
Hirschey, Matthew / Ph.D.	Medicine (Pharmacology and Cancer Biology)	Mitochondrial function and small metabolite regulation of nutrient metabolism by post-translational modifications.
Hsu, Shiaowen David/ M.D., Ph.D.	Medicine	Research focuses on the application of high-throughput genomic based technologies including microarrays and sequencing in combination with preclinical murine models to develop new novel therapeutic targets of gastrointestinal malignancies.
Hurwitz, Herbert / M.D.	Medicine	Phase I clinical trials. Clinical trials of novel agents and regimens in GI cancers. Biomarkers related to angiogenesis inhibitors.
Kastan, Michael / M.D., Ph.D.	Pharmacology and Cancer Biology	Molecular and cellular responses to DNA damage and other stresses.
Kirsch, David / M.D., Ph.D.	Radiation Oncology (Pharmacology and Cancer Biology)	Modeling cancer in the mouse and mechanisms of DNA damage response after radiation.
Kontos, Christopher / M.D.	Medicine (Pharmacology and Cancer Biology)	Molecular mechanisms of vascular remodeling in cardiovascular diseases, including tumor angiogenesis, with emphasis on signaling by endothelial receptor tyrosine kinases.
Kornbluth, Sally / Ph.D.	Pharmacology and Cancer Biology	Basic biology of programmed cell death (apoptosis) and cell cycle progression and the potential for modulating these signaling pathways to enhance cancer therapy.
Lefkowitz, Robert / M.D.	Medicine (Biochemistry, Immunology)	Molecular properties and regulatory mechanisms controlling the function of G protein-coupled receptors.
Lew, Daniel / Ph.D.	Pharmacology and Cancer Biology (Molecular Genetics and Microbiology)	Cell cycle control and the control of cell polarity.
Li, Chuan-Yuan / Ph.D.	Dermatology (Pharmacology and Cancer Biology)	Mechanisms of sarcomagenesis; senescence; modeling cancer from primary human cells.
Li, Qi-Jing / Ph.D.	Immunology; (Duke Cancer Institute)	microRNA-mediated immunoregulation in T lymphocytes and cancer immunotherapy.
Linardic, Corinne / M.D., Ph.D.	Pediatrics (Pharmacology and Cancer Biology)	Mechanisms of sarcomagenesis; senescence; modeling cancer from primary human cells.
Locasale, Jason / Ph.D.	Pharmacology and Cancer Biology	Understanding metabolism and its contribution to human cancer pathogenesis.

Name	Primary (& Secondary) Appointment (s)	Research Interest
Luftig, Micah / Ph.D.	Molecular Genetics and Microbiology	Mechanisms by which Epstein-Barr virus activates and ultimately subverts the host oncogenic stress response to growth transform primary B lymphocytes into indefinitely proliferating lymphoblastoid cell lines (LCLs).
Mathey-Prevot, Bernard / Ph.D.	Pharmacology and Cancer Biology	Utilizing high throughput cell-based assay to understand how signaling pathway architecture and integration have been hijacked in cancer cells.
MacAlpine, David / Ph.D.	Pharmacology and Cancer Biology	Understanding the mechanisms by which the molecular architecture of the chromosome regulates fundamental biological processes such as replication and transcription.
McDonnell, Donald / Ph.D.	Pharmacology and Cancer Biology (Medicine)	Identify druggable targets within estrogen- and androgen-regulated signal transduction pathways that can be exploited in the development of novel breast and prostate cancer therapeutics.
Murphy, Susan / Ph.D.	Obstetrics and Gynecology	Epigenetic alterations in gynecologic malignancies, cancer stem cells, preclinical studies of novel therapeutics, role of epigenetics in the early origins of disease.
Patz, Edward Jr. / M.D.	Radiology (Pathology, Pharmacology and Cancer Biology)	Translational issues related to early cancer detection and mechanisms of metastasis.
Pendergast, Ann Marie / Ph.D.	Pharmacology and Cancer Biology	Regulation of cellular signaling networks by tyrosine kinases in development and cancer.
Petes, Thomas / Ph.D.	Molecular Genetics and Microbiology	The genetic regulation of genome stability and the mechanism of mitotic recombination.
Sampson, John / M.D., PhD., M.H.Sc.	Surgery (Pathology, Immunology, Radiation Oncology)	We derive novel mechanisms of immunotherapy for cancer and develop drugs for translation into humans. We also study the delivery of therapeutics into the central nervous system.
Sherwood, David / Ph.D.	Biology	Using live-cell imaging, molecular genetic and systems level approaches in C. elegans to understand cell invasive behavior.
Spector, Neil / M.D.	Medicine	Elucidating the effects of small molecule signaling transduction inhibitors on signaling networks that regulate tumor cell growth and survival and how these effects contribute to not only their anti-tumor activity but also contribute to the development of therapeutic autoresistance.

Name	Primary (& Secondary) Appointment (s)	Research Interest
Thiele, Dennis / Ph.D.	Pharmacology and Cancer Biology	Regulation of stress-responsive gene expression and roles of metals in growth, development, signaling and microbial pathogenesis.
Wang, Xiao Fan / Ph.D.	Pharmacology and Cancer Biology	Molecular nature and signaling mechanism of tumor microenvironment associated with tumor progression and metastasis.
Wood, Kris / Ph.D.	Pharmacology and Cancer Biology	New functional genomics technologies and their applications in basic and translational cancer biology.
Yan, Hai / M.D., Ph.D.	Pathology	Cancer genomics and signaling pathways that control tumorigenesis.
Yang, Yiping / M.D., Ph.D.	Medicine – Oncology (Immunology)	Cancer immunology and immune regulation.
Yao, Tso-Pang / Ph.D.	Pharmacology and Cancer Biology	Identify and reconstruct the fundamental steps leading to physiological aging and devise therapeutic solutions.
Zhuang, Yuan / Ph.D.	Immunology	Genetic analysis of lymphocyte development and lymphoid system diseases.