Siteman Investment Program
Research Development Award Recipients

The Siteman Investment Program Research Development Award is designed to provide pilot funding to faculty investigators to support pioneering cancer research and produce data to leverage external peer reviewed funding.

2023 Cycle 1
Award Start Date: July 1, 2023

Pre-R01 Award
Arash Darafsheh, PhD
High Spatiotemporal Resolution Radioluminescent Dosimetry of Proton FLASH Radiotherapy for Pre-Clinical Studies

Joseph Ippolito, MD, PhD and Eric Kim, MD
Clinical Molecular Imaging of the Prostate Cancer Microenvironment

Shu (Joy) Jiang, PhD
Understanding the Role of Mammogram Images in the Risk of Triple Negative Breast Cancer

Jacqueline Payton, MD, PhD
A Novel Feed-Forward Cycle that Drives Tumor Progression and Immune Evasion

COE Supplement Award
Ashley Housten, OTD, MSCI
Characterizing Rural Metastatic Breast Cancer Care: A Qualitative Analysis

Team Science Award
Stephen Oh, MD, PhD (Principal Investigator); Grant Challen, PhD; Jorge Di Paola, MD; Daniel Link, MD
Intrinsic and Extrinsic Factors Driving Clonal Evolution and Disease Progression in Myeloproliferative Neoplasms

New Clinical Trial Award
Nusayba Bagegni, MD
NeoTAILOR: A Phase II Biomarker-directed Approach to Guide Neoadjuvant Therapy for Patients with Stage II/III ER-positive, HER2-negative Breast Cancer

Neha Mehta-Shah, MD, MSCI
Phase I Study with an Expansion Cohort of EZH2 Inhibitor CPI-0209 (Tulmimetostat) in Patients with Mycosis Fungoides and Sézary Syndrome
Pre-R01 Award

Roberto Galletto, PhD
Pif1 Helicase as a Target for Inhibition in ALT+ Cancers

Jason Held, PhD
Investigating GSTP1 Structure and Signaling in Breast Cancer

Christopher Maher, PhD
Understanding the Role of the IncRNA, RAMS11, in Lung Cancer

Elizabeth Salerno, PhD, MPH
Prehabilitation to Revolutionize Oncology: Telehealth Exercise for Cognitive Triumphs (PROTECT)

Hanwen Zhang, PhD
Next Generation Theranostic 89Zr/227Th-conjugated PSMA Inhibitor for Precision Molecular Imaging and Radiotherapy of Metastatic of Prostate Cancer

New Clinical Trial Award

Ben Major, PhD
Early Phase I Window of Opportunity Trial of Pyrimethamine as an Inhibitor of NRF2 in HPV-negative Head and Neck Squamous Cell Carcinoma
2022 Cycle 1
Award Start Date: July 1, 2022

Pre-R01 Award
Aimilia Gastounioti, PhD
Advancing Breast Cancer Risk Assessment among White and Black Women Using Artificial Intelligence and Sequential Mammograms

Patricia Ribeiro Pereira, PhD
The Role of Caveolin-1 in Gastric Cancer Response to Immunotherapy

Sheila Stewart, PhD
Senescent Stromal Cells Sculpt the Tumor Microenvironment to Drive Breast Tumorigenesis

Ting Wang, PhD
Exploring Precision Oncology Opportunities Contributed by Transposable Elements

COE Supplement Award
Karla Washington, PhD, LCSW
Centering Families in Advanced Cancer Care: A Group Concept Mapping Approach

New Clinical Trial Award
Armin Ghobadi, MD
Phase I Dose Escalation and Dose Expansion Study of Duvelisib Following Chimeric Antigen Receptor T Cell Therapy

Kian-Huat Lim, MD, PhD
Phase I trial of CA-4948 in Combination with FOLFOX/PD-1 Inhibitor +/- Trastuzumab for Untreated Unresectable Gastric and Esophageal Cancer
2021 Cycle 2
Award Start Date: January 1, 2022

Pre-R01 Award
Jaebok Choi, PhD, MA
PKN1 as a Novel Therapeutic Target to Prevent and Treat GvHD

Matthew Ciorba, MD, and Jonathan Mitchem, MD, in collaboration with the University of Missouri in Columbia
Transcriptomic Assessment of Anti-Tumor Immunity in Locally Advanced Rectal Cancer

Dan Link, MD
Targeting ATR in TP53-mutated AML/MDS

Debra Oliver, MSW, PhD
Dissemination of an Evidence-Based Intervention for Caregivers of Hospice Cancer Patients

Russell Pachynski, MD
Chemerin’s Role in the Tumor and Immune Microenvironments in Prostate Cancer

Allegra Petti, PhD, BA
A Multi-Modal Single-Cell Approach to Developing Personalized Combinatorial Treatments for Glioblastoma

Sidharth Puram, MD, PhD
Understanding Transcriptional and Epigenetic Regulation of Metastasis and Treatment Response in Head and Neck Cancer

Jieya Shao, PhD
Targeting Degradation of the AAA+ ATPase p97/VCP to Improve Cancer Chemotherapy Response

New Clinical Trial Award
Imran Zoberi, MD
Evaluation of Single Fraction Accelerated Partial Breast Irradiation vs. Five Fraction Accelerated Partial Breast Irradiation for Low-risk Stage 0 and I Breast Carcinoma
2021 Cycle 1
Award Start Date: July 1, 2021

Pre-R01 Award
Foluso Ademuyiwa, MD, MPH, MSCI
Reducing racial disparities in genetic testing for breast cancer in African American women

Taeho Kim, PhD
MRI augmented X-ray imaging-guided adaptive radiotherapy for pancreatic cancer (MAX-guided ART)

Guangfu Li, PhD, and David DeNardo, PhD, in collaboration with the University of Missouri in Columbia
Identification of ubiquitin ligases and substrates specifically interacting with a new pancreatic cancer suppressor ABTB2

Angela Mazul, PhD, MPH
Predicting head and neck cancer outcomes using partial epithelial-to-mesenchymal transition biomarker

Jose Zevallos, MD, MPH, and Jin Zhang, PhD
HPV genomic structural subtypes in oropharyngeal squamous cell carcinoma

Team Science Award
Milan Chheda, MD (principal investigator); Michael Diamond, MD, PhD; Tanner Johanns, MD, PhD; Gavin Dunn, MD, PhD; Kenneth Murphy, MD, PhD; Allegra Petti, PhD; Hong Chen, PhD; Albert Kim, MD, PhD; Robyn Klein, MD, PhD; Jian Campian, MD, PhD; Erik Herzog, PhD; Joshua Rubin, MD, PhD; and Jingqin (Rosy) Luo, PhD
Washington University Glioblastoma Team Science: An integrated and collaborative approach to develop new therapies for glioblastoma

Established Clinical Trial Award
Cynthia Ma, MD, PhD
Characterizing cancer cell intrinsic and immunologic phenotypes of estrogen receptor positive and HER2 negative breast cancer resistant to endocrine therapy and CDK4/6 inhibitor
Pre-R01 Award

**Sergej Djuranovic, PhD**
Gene dosage effects and silent cancer mutations in minor splicing factor ZCRB1

**Ryan Fields, MD and Chris Maher, PhD**
The role of RAMS11 in metastatic colorectal cancer

**Ashley J. Housten, OTD, MSCI**
Developing an Academic and Community Practice Collaborative Care Model for Metastatic Breast Cancer Care

**Gregory Lanza, MD, PhD and Monica Shokeen, PhD**
Theranostic approach to chemo-resistant multiple myeloma through VLA-4 imaging and nanotherapeutic targeting

**Stephen Oh, MD, PhD**
Functional Interrogation of JAK2 and ASXL1 Mutations in Myeloproliferative Neoplasms

Team Science Award

**Alessandro Vindigni, PhD; Grant Challen, PhD; Nima Mosammaparast, MD, PhD; and, Luis Batista, PhD**
The Role of DDR in Normal and Malignant Hematopoietic Cells

New Clinical Trial Award

**David DeNardo, PhD and William Hawkins, MD**
Restoring PDAC responsiveness to immunotherapy by targeting conventional dendritic cells

**Geoffrey Uy, MD**
Phase II Randomized, Double-Blind, Placebo-Controlled Trial to Evaluate Uproleselan (GMI-1271) for GI Toxicity Prophylaxis during Melphalan-Conditioned Autologous Hematopoietic Cell Transplantation
2020 Cycle 1  
Award State Date: July 1, 2020

Pre-R01 Award  
Brian Dieckgraefe, MD, PhD  
Targeting CD44ICD as a Mediator of Pancreatic Cancer Growth and Stemness

Eric Kim, MD  
Evaluation of Diffusion Basis Spectrum Imaging to Non-Invasively Diagnose Prostate Cancer

Quing Zhu, PhD  
Predicting neoadjuvant treatment response of locally advanced rectal cancer

Multi-PI Pre-R01 Award  
Gregory Longmore, MD and Amit Pathak, PhD  
Leader Cell Development in Cancer Invasion

Stephanie Perkins, MD; Adam Bauer, PhD; Timothy Mitchell, PhD; and, Francisco Reynoso, PhD  
Examining cognitive decline in mice following a clinically mimetic brain irradiation protocol

Team Science Award  
Milan Chheda, MD (PI); Michael Diamond, MD, PhD; Tanner Johanns, MD, PhD; Gavin Dunn, MD, PhD; Kenneth Murphy, MD, PhD; Allegra Petti, PhD; Albert Kim, MD, PhD; Robyn Klein, MD, PhD; Joshua Rubin, MD, PhD; Erik Herzog, PhD; Jian Campian, MD, PhD  
Washington University Glioblastoma Team Science: An Integrated and Collaborative Approach to Develop New Therapies for Glioblastoma

New Clinical Trial Award  
Jiayi Huang, MD, MSCI  
A feasibility study to correlate cognitive changes of IDH-mutant and IDH-wildtype glioma patients after chemoradiotherapy with radiation dose to the resting state networks

Tanner Johanns, MD, PhD  
A personalized neoantigen vaccine in patients with newly diagnosed glioblastoma using a novel DNA-based platform
2019 Cycle 2  
Award State Date: January 1, 2020

Pre-R01 Award

**Kyunhee Choi, PhD**
Angiogenic mechanisms enhancing anti-tumor immunity

**Takeshi Egawa, MD, PhD**
Functional characterization of an uncharacterized cytokine, Gm525, as a potential target for cancer therapies

**Roberta Faccio, PhD**
Role of Dkk1 in breast cancer progression and immune suppression

**Stefanie Geisler, MD**
Developing strategies to prevent and treat chemotherapy-induced neuropathy

**Obi Griffith, PhD and Jeffrey Bryan, DVM, MS, PhD, DACVIM (University of Missouri)**
Modeling anti-PDL1 response and resistance in naturally occurring canine cancer

**Andrea Hagemann, MD**
Implementation of the Families Accelerating Cascade Testing Toolkit (FACTT) for Hereditary Breast and Ovarian Cancer and Lynch Syndrome

**Kian Lim, MD, PhD**
Development of Novel ERK Inhibitor-Based Therapeutic Combinations In Pancreatic Cancer Based On Proteo-Transcriptomic Analyses

**Christopher Maher, PhD**
Recurrent long non-coding RNA gene fusions across solid tumors

Multi-PI Pre-R01 Award

**Li-Shiun Chen, MD, MPH, ScD and Aimee James, PhD, MPH**
Implementing multilevel smoking cessation interventions to reduce rural cancer disparity

**Zhongsheng You, PhD and Matthew Walter, MD**
Targeting the Nonsense-mediated RNA decay (NMD) pathway in cancer with aberrant splicing

New Clinical Trial Award

**Mark Schroeder, MD**
Phase I trial of best-in-class JAK inhibitor, baricitinib, as prophylaxis of Graft versus Host disease (GVHD) in patients undergoing allo-HCT for hematologic malignancies
2019 Cycle 1  
Award State Date: July 1, 2019

Pre-R01 Award  
**Luis Batista, PhD**  
Rescue of HNF4a levels restores hepatocyte function and prevents end-stage liver disease and cancer in patients with impaired telomere maintenance

**Colin Flaveny, PhD (Saint Louis University)**  
Targeting LXR regulation of prostate cancer immunometabolism

**Michael Holtzman, MD**  
Reprogramming epithelial stem cells in triple-negative breast cancer

**James Janetka, PhD**  
The role of pericellular serine proteases in tumor progression and resistance to anticancer therapy

**Charles Kaufman, MD, PhD**  
Defining Transcriptional Regulators of Melanoma Initiation  
*(Award returned due to funding from the National Cancer Institute)*

**Jeffrey Magee, MD, PhD**  
Cooperating mutations and resistance to FLT3-ITD inhibition in pediatric acute myeloid leukemia

**Jinsong Zhang, PhD (Saint Louis University)**  
Lysine acetylation of human histone deacetylase 3 as a new cancer target

Multi-PI Pre-R01 Award  
**Nima Mosammaparast, MD, PhD and Kory Lavine, MD, PhD**  
Alkylating Chemotherapies Promote Heart Failure by Targeting Tissue Resident Cardiac Macrophages

New & Established Clinical Trial Award  
**Jian Campian, MD, PhD**  
Role of a novel IL-7 agonist, rhIL-7hyFc, in immune reconstitution in patients with gliomas

**Russell Pachynski, MD**  
Personalized Neoantigen Vaccine Immunotherapy for Prostate Cancer

**Gregory Vlacich, MD, PhD**  
A Single-Arm Phase II Study with a Safety lead-in of Magnetic Resonance-Guided Hypofractionated Adaptive Radiation Therapy with Concurrent Chemotherapy and Consolidation Durvalumab for Inoperable Stage IIB and IIIA Non-small Cell Lung Cancer
2018 Cycle 2
Award Start Date: January 1, 2019

Pre-R01 Award
Yin Cao, ScD, MPH
Oral Microbiome, Virome, and Barrett’s Esophagus

Simon Haroutounian, PhD, MSc
Intravenous lidocaine for preventing oxaliplatin-induced peripheral neuropathy (OIPN)

Aimee James, PhD, MPH
Pilot implementation and feasibility assessment: Multilevel intervention to reduce rural colon cancer disparities

Julie Schwarz, MD, PhD
Radio-sensitization by free fatty acid supplementation in cervical cancer

John Welch, MD, PhD
Retinoid therapy in acute myeloid leukemia

Multi-PI Pre-R01 Award
Rebecca Aft, MD, PhD; Mark Watson, MD, PhD; and, Leonel Hernandez-Aya, MD
Genomic Classification and Targeted Immunotherapy of Disseminated Tumor Cells (DTCs) in Breast Cancer Patients

Team Science Award
Todd Fehniger, MD, PhD and Brad Kahl, MD
Advancing Therapies for Incurable Lymphomas via Translational Team Science
2018 Cycle 1
Award Start Date: July 1, 2018

Pre-R01 Award
Milan Chheda, MD
The role of ZFHX4 in the glioblastoma tumor propagating cell state

Tahir Rahman, MD
Antipsychotics and Breast Cancer

Ryan Teague, PhD (Saint Louis University)
Obesity as an obstacle to cancer immunotherapy

Brian Van Tine, MD, PhD
Using Arginine Metabolism to Treat Sarcomas

Alessandro Vindigni, PhD (Saint Louis University)
Role of PrimPol in BCRA1-deficient tumors

Multi-PI Pre-R01 Award
Delphine Chen, MD and Andrea Wang-Gillam, MD, PhD
Imaging PARP levels to predict DNA-damaging agent treatment responses in pancreatic cancer

Cynthia Ma, MD, PhD and Jason Held, PhD
NEK9-MAP2K4: A Novel Signaling Axis Promoting Breast Cancer Growth and Chemotherapy Resistance

Joshua Rubin, MD, PhD; Joseph Ippolito, MD, PhD; and, Kwee L. Thio, MD, PhD
Combined ketogenic diet and BCNU for recurrent pediatric brain tumors
Pre-R01
Grant Challen, PhD
The Role of Interferon Gamma Signaling in the Clonal Evolution of Pre-Leukemic Stem Cells

Jaebok Choi, PhD
IFNγR and IL6R Signaling Pathways as Therapeutic Targets to Prevent GvHD While Preserving GvL

David DeNardo, PhD
The Impact of Macrophage Origin on the Pathogenesis of Pancreatic Cancer

Gavin Dunn, MD, PhD
Development of an Immunocompetent Autochthonous Model of Glioblastoma

Kristen Naegle, PhD
Discovering the Role of Phosphorylation in the Pleckstrin Homology Domain

Jacqueline Payton, MD, PhD
Defining the Role of Long Non-Coding RNAs in Lymphoma Pathogenesis

Lukas Wartman, MD
The Role of the Histone Demethylase KDM6A in Acute Leukemia

Multi-PI Pre-R01
Buck Rogers, PhD and Dong Zhou, PhD
Treatment of Metastatic Prostate Cancer with Radioactive PARP Inhibitors

Pre-SPORE/PPG
Tim Ley, MD
Genomics of Acute Myeloid Leukemia
2017 Cycle 1  
Award Start Date: July 1, 2017

Pre-R01

**Jianguo Liu, MD, PhD**, Saint Louis University  
Posttranscriptional control of breast tumor growth and metastasis

**Lee Ratner, MD, PhD**  
Role of IRF4 in HTLV-Associated Adult T Cell Leukemia Lymphoma

**Michael Rettig, PhD**  
Development of a Superior Mobilizing Regimen for Hematopoietic Stem Cell Transplantation

**Amit Pathak, PhD**  
Memory-Plasticity Crosstalk in Cancer Cells

Multi-PI Pre-R01

**Roberta Faccio, PhD and Roberto Civitelli, MD**  
Characterization and Tumorigenic Action of Osteolineage Cells in the Breast Cancer Microenvironment

**Joel Garbow, PhD; Keith Rich, MD; and, Christina Tsien, MD**  
Post-XRT Effects in Brain Parenchyma Promote Dramatic Changes in Glioma Phenotype

Pre-SPORE/PPG

**Jason Mills, PhD, MD**  
Mechanisms of Gastrointestinal Adenocarcinoma Tumorigenesis
Pre-R01 WUSM
James Skeath, PhD
A genetic model of perineural invasion

Steven Teitelbaum, MD
Fatty liver promotes hepatic breast cancer metastasis

Zhongsheng You, PhD
Nonsense-mediated mRNA decay in DNA damage response

Multi-PI Pre-R01
Nima Mosammaparast, MD, PhD and Hani Zaher, PhD
RNA as a target of alkylation chemotherapy in cancer

Terence Myckatyn, MD and Mary Politi, PhD
Optimizing Decision Making about Breast Reconstruction after Mastectomy: A Patient-Centered Approach

Jay Piccirillo, MD; Alex Wong, PhD; Bradley Schlaggar, MD, PhD; and, Lindsay Peterson, MD
Evaluating Cognitive Function and Functional Connectivity in Breast Cancer Survivors Who Received Chemotherapy

Pre-SPORE/PPG
William Gillanders, MD
Siteman Cancer Center Breast Cancer SPORE
Pre-R01 Award

**Jeffrey Bednarski, MD, PhD**
DNA Damage Mediated Checkpoints in Early B Cell Development

**Ron Bose, MD, PhD**
Targeting HER2 activating mutations in Metastatic Breast Cancer

**Christopher Maher, PhD**
The role of onco-lncRNA-230 as an epigenetic regulator of colon cancer metastasis

**Jieya Shao, PhD**
Functional Regulation of DNA Damage Response by the Ubiquitin-Selective Protein Segregase VCP

**Tanya Wildes, MD, MSCI**
Optimizing fall-risk prediction in older adults with cancer

**Sergey Korolev, PhD, Saint Louis University**
Mechanism and inhibition of PALB2 and BRCA2 proteins

Multi-PI Pre-R01

**Kendall Blumer, PhD and Michael Onken, PhD**
Direct pharmacological targeting of Gq/11 in uveal melanoma
Pre-R01
Graham Colditz, MD, DrPH
Premenopausal plasma carotenoids and incident premalignant breast diseases

Joseph Ippolito, MD, PhD
Characterizing the Effects of Sexual Dimorphism on Glioma Metabolism

Albert Kim, MD, PhD
Regulation of glioblastoma stem-like cells by CDC20-Anaphase-Promoting Complex

Kian Lim, MD, PhD
Deactivating the Innate Immune Defense Mechanism of Pancreatic Cancer

Ryan Teague, PhD, Saint Louis University
Exploring T cell diversity as a novel mechanism for cancer immunotherapy

Multi-PI Pre-R01
Jeff Milbrandt, MD, PhD and Aaron DiAntonio, MD, PhD
Axonal maintenance for prevention of chemotherapy-induced peripheral neuropathy

Pre-SPORE/PPG
William Gillanders, MD
Siteman Cancer Center Breast Cancer SPORE

Greg Longmore, PhD
Tumor-Environment Communication Regulating Metastasis
Pre-R01
**David DeNardo, PhD**
Targeting Focal Adhesion Kinase to Render Pancreatic Cancer Responsive to Immunotherapy

**Todd Fehniger, MD, PhD**
Memory-like natural killer (NK) cells for cancer immunotherapy

Multi-PI Pre-R01
**Matthew Walter, MD and Eric Duncavage, MD**
Role of Subclones and Mutations in the Progression of MDS to Leukemia
*(Award returned due to private funding from a foundation)*

**Dale Dorsett, PhD; Alessandro Vindigni, PhD; and, Susana Gonzalo, PhD,** Saint Louis University
DNA Replication, Nuclear Architecture and Genome Stability

Pre-SPORE
**Jason Mills, MD, PhD**
Mechanisms of Gastrointestinal Adenocarcinoma Tumorigenesis