



## **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 2**

**Award Start Date: January 1, 2024**

### Pre-R01 Award

#### **Luis Batista, PhD**

Posttranscriptional Regulation of the Telomerase RNA Component is a Major Determinant of Hematopoietic Failure in Telomerase Mutants

#### **Milan G. Chheda, MD**

Brain Tumor Treatment as a Promoter of Tumor Recurrence

#### **Carl DeSelm, MD, PhD**

Priming Antitumor T-cell Responses In Vivo with CAR Antigen Presenting Cells

#### **Roberta Faccio, PhD**

Mechanisms of Tumor Immune Evasion

#### **Ryan Fields, MD, BS, and Christopher Maher, PhD**

Circular RNA Encoded Peptides in Colon Cancer

#### **Amy McQueen, PhD**

Knowledge and Beliefs about Alcohol Consumption as a Risk Factor for Cancer

### New Clinical Trial Award

#### **Melissa Reimers, MD; Joseph Ippolito, MD, PhD; Linda Peterson, MD**

Pilot Clinical Trial of Neoadjuvant SGLT2 Inhibition in High-Risk Localized Prostate Cancer

### Established Clinical Trial Award

#### **Nikolaos Trikalinos, MD, MS and Kian-Huat Lim, MD, PhD**

Cabozantinib in High Grade Neuroendocrine Neoplasms



**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



**2022 Cycle 2**  
**Award Start Date: January 1, 2023**

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 lncRNA, RAMS11, in Lung Cancer

**Elizabeth Salerno, PhD, MPH**

Prehabilitation to Revolutionize Oncology: Telehealth Exercise for Cognitive Triumphs (PROTECT)

**Hanwen Zhang, PhD**

Next Generation Theranostic  $^{89}\text{Zr}/^{227}\text{Th}$ -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 Gastouniotti, 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



**2020 Cycle 2**  
**Award State Date: January 1, 2021**

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. Houston, 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

**Kyunghee 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 ZFH4 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



**2017 Cycle 2**

**Award Start Date: January 1, 2018**

Pre-R01

**Grant Challen, PhD**

The Role of Interferon Gamma Signaling in the Clonal Evolution of Pre-Leukemic Stem Cells

**Jaebok Choi, PhD**

IFN $\gamma$ R 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



**2016 Cycle 2**  
**Award Start Date: January 1, 2017**

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



**2016 Cycle 1**  
**Award Start Date: July 1, 2016**

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





**2015 Cycle 2**  
**Award Start Date: January 1, 2016**

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



**2015 Cycle 1**  
**Award Start Date: July 1, 2015**

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