Spatial and Functional Genomics Research Affinity Group

Grants

Investigators in the Spatial and Functional Genomic Research Affinity are supported by the following grants.

Implicating novel microglial mechanisms of late-onset Alzheimer's disease with variant-to-gene mapping methods.
Ruth L. Kirschstein National Research Service Award (NRSA) Individual Predoctoral Fellowship (Parent F31)
PI: Elizabeth A. Burton
09/01/2021 to 09/01/2024
FAG074532A
Role: Predoctoral Fellowship
Co-sponsors: Struan F.A. Grant and Christopher D. Brown
Project Consultant: Li-San Wang

Functional Interrogation of T2D-Associated Genes in Human Stem Cell-derived Models and Mice
NIH
PI: Patrick Seale, Struan Grant, Klaus Kaestner, Daniel Rader, Benjamin Voight, Wenli Yang
08/20/2020 to 06/30/2025
UM1 DK126194-01

Genomics of Bone and Body Composition Traits in Children
NIH
PI: Babette Zemel and Struan Grant
08/07/2020 to 06/30/2025
R01 HD100406-01A1

Genome-wide Association Study for Childhood Obesity
NIH
PI: Struan F. A. Grant
07/15/2008 to 06/30/2025
R01 HD056465-11A1

Promoter interactome-aided mapping of unexplored CVID genetic landscapes
NIAID
PI: N. Romberg
07/16/2019 to 06/30/2024
R01 AI146026
Role: Co-Investigator

Functional Mechanisms of T1D Risk Variants and their Target Genes using 3D Epigenomics and Single Cell Approaches
NIDDK
PI: S. Grant, S. Rich, A. Wells
08/01/2019 to 05/31/2023
R01 DK122586

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Network-based algorithms for drug discovery from genetic associations
NHGRI
PI: C Greene
06/12/2018 to 04/30/2023
R01 HG010067
Role: Co-Investigator

Treating Chronic Viral Infection by Epigenetic Reprogramming of Exhausted CD8 T Cells
PI: Shen
09/01/2017 to 08/31/2022
R01 AI130115
Role: Co-Investigator
The major goal of this project is to study how pharmacologic histone deacetylase inhibitors reprogram exhausted CD8 T cells at the epigenomic, transcriptional, and function level. These studies do not overlap with any of the other listed projects.

Epigenetic Imprinting of Follicular Helper T Cell Fate and Function in Lupus
NIH/NIAID
PI: Laufer
09/01/2017 to 08/31/2022
R01 AI123539
Role: Co-Investigator
The major goal of this project is to establish the epigenetic mechanisms involved in the Tfh cell fate decision, and whether these processes are dysregulated in individuals genetically susceptible to lupus. These studies do not overlap with any of the other listed projects.

Elucidation of Genetic Effects on Sleep and Circadian Traits
NHLBI
PI: P. Gehrman, S. Grant, A. Keene
09/01/2018 to 06/30/2022
R01 HL143790
Integrating GWAS of Sleep and Circadian Traits with functional follow-up efforts

Variant to Gene Mapping for Alzheimer's Disease
NIA
PI: S. Grant
09/15/2017 to 06/30/2022
R01 AG057516

Decoding Methylation Mediated Epigenomic Contributions to Male Osteoporosis
NIAMS
PI: H.W. Deng
09/01/2006 to 08/31/2021
R01 AR069055
Role: Role: Co-Investigator (S. Grant)

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Cyclin-dependent Kinases: Novel Switches in Anergy and Targets for Tolerance
NIH/NIAID
PI: A. Wells
12/01/2015 to 11/30/2020
R01 AI054643-12
The major goal of this project is to determine the mechanisms by which CDK influence T cell memory vs. tolerance, and to test these enzymes as therapeutic targets in transplantation models.

Regulation of Skeletal Growth by Nuclear Retinoid Receptors
NIH/NIAMS
PI: M. Iwamoto
12/01/2008 to 08/31/2020
R01 AR056837
Role: Co-Investigator (S. Grant)

Genome Wide Association Study for Childhood Obesity
NICHD
PI: S. Grant
07/15/2008 to 04/30/2020
R01 HD056465

The Myc-Mir-17-92 Axis in Colorectal Cancers
NCI
PI: A. Thomas-Tikhonenko
04/01/2015 to 03/31/2020
R01 CA196299
Role: Co-Investigator (S. Grant)

Genome-wide Association Study of Latent Autoimmune Diabetes in Adults
NIDDK
PI: S. Grant
07/01/2011 to 03/31/2020
R01 DK085212

TCF7L2, ACSL5 and Lipid Mediators in CF-Related Diabetes
CF Foundation
PI: R. Rubenstein
10/01/2016 to 09/30/2019
RUBENS16A0
Role: Co-Investigator (S. Grant)

Variant to Gene Mapping for Type 2 Diabetes
NICHD
PI: S. Grant
07/01/2016 to 06/30/2019
R21 HD089824

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Exploiting Metabolic Vulnerabilities of CD4+ T Cell Subsets to Control Inflammation
NIH/NIDDK
PI: J. Rathmell
05/01/2015 to 04/30/2019
R01 DK100901
The major goal of this project is to determine the role of glucose and related metabolic pathways in regulating CD4+ T cell function.

Intergenic cis-Regulatory Elements in the Control of IL-2 and IL-21
NIH/NIAID
PI: A. Wells
01/01/2014 to 11/30/2017
R21 AI110179-01
Role: Collaborator
The major goal of this project is to identify distal enhancer elements that regulate transcription of the IL-2 and IL-21 genes using ChIP and 3-dimensional chromosome capture approaches.