

## Stem Cell Grants

### 2023

- Dr. Laura Hansen (Creighton University): Flower Lineage Tracing in CRAINBOW Mice Stem Cells (one year: \$109,125)
- Dr. R Katherine Hyde (University of Nebraska Medical Center): Hematopoietic Stem Cells and Bone Marrow Failure (one year: \$109,125)
- Dr. Jung Yul Lim (University of Nebraska – Lincoln): Flow Shear-Induced YAP/TAZ Mechanosensing in MSCs (one year: \$109,125)
- Dr. Jingwei Xie (University of Nebraska Medical Center): Ritonavir-Eluting Nanofiber Scaffolds for Inhibition of Heterotopic Ossification (one year: \$109,125)

### 2022

- Dr. Bin Duan (University of Nebraska Medical Center): Targeted MSC Exosomes for Neuropathic Pain Relief (one year: \$81,652.50)
- Dr. Yusi Fu (Creighton University): ALDH1A1 Cancer Stem Cells Abundance in Uterine Blood as a Potential Diagnostic Marker for Endometrial Cancer (one year; \$81,652.50)
- Dr. Moorthy Ponnusamy (University of Nebraska Medical Center): Unique Stemness Potentiate Pancreatic Organ-Specific Metastasis (one year: \$81,652.50)
- Dr. Olga Taraschenko (University of Nebraska Medical Center): In Vivo Monitoring of Neurogenesis in Encephalitis (one year: \$109,890)
- Dr. William Velander (University of Nebraska – Lincoln): A1AT/MSC Anti-Inflammatory ARDS Biotherapy (one year: \$81,652.50)

### 2021

- Dr. Andrew Hamann (University of Nebraska – Lincoln): MSCs for miRNA-Loaded and Cell-Targeting Exosomes (one year: \$25,000)
- Dr. Robert Lewis (University of Nebraska Medical Center): Determinants of Stem Cell Formation in Colorectal Cancer (one year: \$110,000)
- Dr. Brian North (Creighton University): Targeting SIRT2 in Glioblastoma Cancer Stem Cells (one year: \$95,750)
- Dr. A. Angie Rizzino (University of Nebraska Medical Center): SOX2: MYC Axis and Drug Tolerant Cancer Stem Cells (one year: \$95,750)
- Dr. Jian Zuo (Creighton University): Cochlear Stem Cells for Hearing Restoration (one year: \$110,000)

### 2020

- Dr. Shannon Buckley (University of Nebraska Medical Center): Regulation of Stem Cell Fate Decisions by FBXO21 (one year; \$110,000)
- Dr. Laura Hansen (Creighton University): Targeting Cancer Stem Cells for Cutaneous SCC (one year; \$110,000)
- Dr. Sidharth Mahapatra (University of Nebraska Medical Center): NFIB's Role in Medulloblastoma Stem Cell Renewal (one year; \$57,954)

- Dr. Holly Stessman (Creighton University): KMT5B Role in Maintaining Neural Stem Cell Pools (one year; \$110,000)
- Dr. Siwei Zhao (University of Nebraska Medical Center): Electrical Stimulation of Endogenous Adipose-Derived Stem Cells for Chronic Wound Healing (one year; \$48,546)

## 2019

- Dr. Shashank Dravid (Creighton University): Targeting Stem Cells to Facilitate Remyelination in Disease States (one year; \$110,000)
- Dr. Kyle Hewitt (University of Nebraska Medical Center): Signaling Mechanisms in Hematopoietic Stem Cells (one year; \$110,000)
- Dr. R. Katherine Hyde (University of Nebraska Medical Center): Evaluation of Novel Agents for HSC Mobilization (one year; \$72,166)
- Dr. Xiaowei Li (University of Nebraska Medical Center): Injectable Antioxidative Resilient Composite for Peripheral Artery Disease Treatment (one year; \$72,167)
- Dr. William Velander (University of Nebraska – Lincoln): Combinational Stem Cell Therapy for Chronic Wounds (one year; \$72,167)

## 2018

- Dr. Iqbal Ahmad (University of Nebraska Medical Center): Human Disease Modeling of Glaucoma (one year; \$101,850)
- Dr. Matthew Dilisio (Creighton University): Stem Cell Derived Exosome Delivery for Tendon Repair (one year: \$20,950)
- Dr. Sung-Ho Huh (University of Nebraska Medical Center): Mechanism Regulating Sensory Stem Cell Generation (one year: \$101,850)
- Dr. Jung Yul Lim (University of Nebraska – Lincoln): Role of YAP Mechanotransduction in MSC Fate Decision (one year: \$110,000)
- Dr. Jingwei Xie (University of Nebraska Medical Center): ADSCs-seeded 3D Aerogels for Bone Regeneration (one year: \$101,850)

## 2017

- Dr. Bin Duan (University of Nebraska Medical Center): MSC Derived Myelinating Schwann Cell for PN Regeneration (one year; \$101,500)
- Dr. Anna Dunaevsky (University of Nebraska Medical Center): Modeling Fragile X Syndrome with Stem Cells (one year; \$101,500)
- Dr. Yuguo Lei (University of Nebraska – Lincoln): A Method for Culturing Induced Pluripotent Stem Cells (one year; \$110,000)
- Dr. Jingwei Xie (University of Nebraska Medical Center): 3D Scaffolds Homing Stem Cells for Cartilage Repair (one year; \$101,500)

## 2016

- Dr. Shannon Buckley (University of Nebraska Medical Center): Role of E3 Ubiquitin Ligase, FBXo8, in Maintaining & Inducing Pluripotency (one year; \$109,468)
- Dr. Xian-Ming Chen (Creighton University): Intestinal Stem Cell Responses to *C. Parvum* Infection (one year; \$110,000)

- Dr. Andrea Cupp (University of Nebraska – Lincoln): Purification & Proliferation of Mouse Spermatogonial Stem Cells (one year; \$110,000)
- Dr. Haitao Wen (University of Nebraska Medical Center): O-GlcNAc Signaling in Intestinal Stem Cell Mediated Epithelial Regeneration (one year; \$105,532)

## 2015

- Dr. Andrea Cupp (University of Nebraska – Lincoln): Mechanisms of VEGFA Isoforms on Germ Stem Cells (one year; \$87,400)
- Dr. R. Katherine Hyde (University of Nebraska Medical Center): The Role of RUNX1 and GATA2 in Leukemia Stem Cells (one year; \$87,400)
- Dr. Yuguo Lei (University of Nebraska – Lincoln): Novel Stem Cell Therapy for Parkinson's Disease (one year; \$87,400)
- Dr. Jung Yul Lim (University of Nebraska – Lincoln): Mechanical Stretch Control of Stem Cell Fate (one year; \$87,400)
- Dr. A. Angie Rizzino (University of Nebraska Medical Center): Cancer Stem Cells of Pancreatic Ductal Adenocarcinoma (one year; \$87,400)

## 2014

- Dr. Shashank Dravid (Creighton University School of Medicine): mTOR Pathway and Glutamate Delta-1 in Neural Stem Cells (one year; \$110,000)
- Dr. Andrew Dudley (University of Nebraska Medical Center; working with University of Nebraska – Lincoln): Calcium-Optimized Cartilage Formation from MSCs (one year; \$110,000 with University of Nebraska Medical Center receiving \$62,260 and University of Nebraska – Lincoln receiving \$47,740)
- Dr. A. Angie Rizzino (University of Nebraska Medical Center): Reprogramming Human Somatic Cells without Transgenes (one year; \$110,000)
- Dr. Stephen Rennard (University of Nebraska Medical Center): Reprogramming Airway Fibroblasts in Asthma (one year; \$105,986)

## 2013

- Dr. Iqbal Ahmad (University of Nebraska Medical Center): Therapeutic Regeneration in Diseased Retina (one year; \$110,000)
- Dr. Hamid Band (University of Nebraska Medical Center): Genetic Dissection of Intestinal Crypt Stem Cell Regulation by Cbl-family Ubiquitin Ligases (one year; \$110,000)
- Dr. Jance Gelineau-van Waes (Creighton University School of Medicine): CerS1-Gdf1: Bicistronic Balance of Neural Stem Cell Fate (one year; \$109,857)
- Dr. Shadi Othman (University of Nebraska – Lincoln): Multi-Modal Imaging for Bone TE in a Defect Model (one year; \$109,967)

## 2012

- Dr. Andrea Cupp (University of Nebraska – Lincoln): VEGFA Isoform Effects on Spermatogonial Stem Cell Homeostasis (one year; \$80,000)
- Dr. Shi-Jian Ding (University of Nebraska Medical Center): Proteomic Study of iPSC and NPC Induction (one year; \$100,000)

- Dr. Santhi Gorantla (University of Nebraska Medical Center): Humanized Mouse Model to Test Immunogenicity of iPSCs (one year; \$68,269)
- Dr. Woo-Yang Kim (University of Nebraska Medical Center): Neural Stem Cells and Neurological Disorders (one year; \$100,000)
- Dr. Anuradha Subramanian (University of Nebraska – Lincoln): Clinically Relevant Cartilage in Ultrasonic Bioreactors (one year; \$100,000)

## 2011

- Dr. Jung Yul Lim (University of Nebraska – Lincoln): Controlling Stem Cell Fate via Cell Patterning (two years; \$150,000 total)
- Dr. Mayumi Naramura (University of Nebraska Medical Center): Regulation of Hematopoietic Stem Cell Homeostasis by CBL (two years; \$150,000 total)
- Dr. Anuradha Subramanian (University of Nebraska – Lincoln): Mesenchymal Stem Cells, Scaffolds, and Ultrasound in Cartilage Tissue Engineering (one year; \$56,420)
- Dr. Zhao-Yi Wang (Creighton University): ER-alpha36: Roles in Breast Cancer Stem Cells (two years; \$150,000 total)

## 2010

- Dr. Hesham Basma (University of Nebraska Medical Center): Induced Pluripotent Stem Cells and COPD (two years; \$129,500 total)
- Dr. Shi-Jian Ding (University of Nebraska Medical Center): Proteomic Study of iPS and NPC Cell Induction (two years; \$129,500 total)
- Dr. George Oyler (University of Nebraska – Lincoln): Tcd Based Protein Delivery of iPSC Reprogramming Factors (one year; \$95,080)
- Dr. John Sharp (University of Nebraska Medical Center): Mouse and Human iPS Cells: Tools to Probe Cellular Aging (two years; \$129,500 total)

## 2009

- Dr. Iqbal Ahmad (University of Nebraska Medical Center): Adult Stem Cells for Autologous Cell Therapy (two years; \$150,000 total)
- Dr. Kirk Beisel (Creighton University School of Medicine): Transcript Factors in Auditory Hair Cell Regeneration (two years; \$150,000 total)
- Dr. Andrea Cupp (University of Nebraska – Lincoln): VEGF Isoform Regulation of Spermatogonial Stem Cells (two years; \$150,000 total)
- Dr. A. Angie Rizzino (University of Nebraska Medical Center): Human iPS Cell Formation and Sox2-Associated Proteins (two years; \$150,000 total)
- Dr. Garrett Soukup (Creighton University School of Medicine): MicroRNA Promotion of Hair Cell Differentiation (two years; \$150,000 total)
- Dr. Jialin Zheng (University of Nebraska Medical Center): Regenerative Therapy of Parkinson's Disease by iPS Cells (two years; \$150,000 total)