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**Summer Training and Research Inspiration for Diverse Pipeline Engagement toward Advancing Stem Cell Treatment (STRIDE)**

**Grant Award Details**

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Summer Training and Research Inspiration for Diverse Pipeline Engagement toward Advancing Stem Cell Treatment (STRIDE)

**Grant Type:** SPARK

**Grant Number:** EDUC3-13234

**Project Objective:** This UCR based SPARK program will support 5 week internships for 60 diverse students from the Inland Empire. Beyond research training, students will learn communication and other skills through a set of core workshops, seminars, and mentoring sessions. This program is a new edition to SPARK and will serve an important, underserved area of CA. Students will participate in structured patient engagement and community outreach activities.

**Investigator:**

<b>Name:</b>	Huinan Liu
<b>Institution:</b>	The Regents of the University of California on behalf of its Riverside Campus
<b>Type:</b>	PI

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**Award Value:** \$509,000

**Status:** Active

**Grant Application Details**

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**Application Title:** Summer Training and Research Inspiration for Diverse Pipeline Engagement toward Advancing Stem Cell Treatment (STRIDE)

**Public Abstract:**

CIRM SPARK - UCR STRIDE (Summer Training and Research Inspiration for Diverse Pipeline Engagement toward Advancing Stem Cell Treatment) program is a 5-week summer research and training program with an emphasis on diversity, inclusion, and equality, building on the strength and excellent records of University of California Riverside (UCR) in recruiting, retaining, and training diverse and disadvantaged students. STRIDE program includes a diverse group of stem cell faculty from 3 areas (engineering, life science, and medicine) to provide hosting labs in 3 colleges, that is, Bourns College of Engineering (BCOE), College of Natural & Agricultural Sciences (CNAS), and School of Medicine (SOM) at UCR. We include diverse graduate, medical, and undergraduate students to serve as teaching assistants (TAs) and mentors. We collaborate with the teams of excellent staff who direct and manage the existing outreach programs cross UCR campus, such as Early Academic Outreach Programs (EAOP), School MESA Programs, TRIO Pre-college Programs, and SOM Pipeline Programs. We have a diverse advisory committee for STRIDE program, including faculty, staff, outreach program directors, and diverse students representing different stages (undergraduate, graduate and medical students). Our diverse faculty and student mentors will provide research training relevant to stem cells and regenerative medicine in the areas of bioengineering, biomaterials, tissue engineering, regenerative medicine, therapeutics, neuroengineering, neurodegenerative diseases, epilepsy, neurophysiology, brain injury, stem cell biology and signaling pathway, bone diseases, developmental biology, cardiovascular diseases, diabetes, aging related diseases, toxicology, etc. STRIDE training will be interdisciplinary. STRIDE trainees will gain far visions in career and life journey by interacting directly with faculty mentors, student mentors including undergraduate, graduate and medical students, invited professional speakers including academic/industry leaders, policy makers, IP attorneys, medical doctors, nurses, entrepreneurs, patients and patient advocates. STRIDE program will also offer educational and enrichment activities, including short courses for research readiness, stem cell related research talks, workshops for communication skills, workshops for science to policy, career panels, mentoring sessions, discussions, community outreach activities, team building rope course, and how to use social media to enhance public awareness of medical needs and stem cell treatment. UCR is a Hispanic Serving Institution located in Inland Empire with two largest counties in California - Riverside and San Bernardino. The Inland Empire is one of the medically underserved areas with most diverse population in California. There is a critical need to build a pipeline of diverse stem cell workforce to serve this area and accelerate research and development of stem cell therapies to address the medical needs.

**Statement of Benefit to California:** The University of California Riverside (UCR) is a research-intensive, federally designated Hispanic Serving Institution, with strength and excellence in recruiting and educating diverse and disadvantaged students. U.S. News & World Report ranked UCR the No. 1 university in the United States for social mobility three years in a row and ranked UCR School of Medicine (SOM) No. 6 in the country for diversity. Social mobility is a measure of the degree to which universities lift graduates into higher income brackets. National Science Foundation ranked UCR No. 3 in Hispanic STEM graduates in the nation. UCR has a significant positive impact on California that extends far beyond campus, from its economic driving force to its role in the community to the influence it casts on the future. UCR is the only public research university in Inland Southern California, with pioneering research and diverse education programs that produce a significant impact both globally and locally. UCR fuels positive economic growth in Southern California and beyond. UCR STRIDE (Summer Training and Research Inspiration for Diverse Pipeline Engagement toward Advancing Stem Cell Treatment) program is uniquely positioned with strengths of UCR to fulfill the CIRM SPARK program goals of inspiring, educating, and motivating high school students; broadening participation in stem cell, gene therapy and related research to diverse and disadvantaged high school students who might not otherwise have such opportunities; and accelerating stem cell treatments to patients with unmet medical needs. STRIDE program integrates multidisciplinary research projects with critical courses and educational enrichment activities to train and inspire diverse high school students to become part of the pipeline for undergraduate, graduate, medical students, and professionals in the areas of stem cell and regenerative medicine. STRIDE trainees will come from the Inland Empire, a disadvantaged region with great diversity and many families and communities with unmet medical needs. STRIDE program collaborates with many successful outreach programs at UCR to recruit diverse and socioeconomically challenged high school students, such as Early Academic Outreach Programs (EAOP), School MESA Programs, TRIO Pre-college Programs, and SOM Pipeline Programs. STRIDE program builds the pipeline that provides well-trained diverse workforce to accelerate stem cell treatments to patients with unmet needs and attract biotech industries to the Inland Empire, a region historically with socioeconomic disadvantages. STRIDE program will collaborate with UCR SOM and Center for Health Disparities to help high school students learn about unmet medical needs and inspire them to think about future solutions to address healthcare disparities in the Inland Empire. STRIDE trainees are part of the pipeline that fuels the future economic growth in the Inland Empire and benefits the state of California in diversity of stem cell workforce.

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