USC Stem Cell

Highlights 2023

USC doubles the number of scholarships for stem cell master's students

This year, ten students earned scholarships that enabled them to attend USC's master's program in stem cell biology and regenerative medicine, one of the only programs of its kind in the United States. Compared to the previous year, this represents a doubling in the number of scholarships available for stem cell master's students at the Keck School of Medicine of USC.

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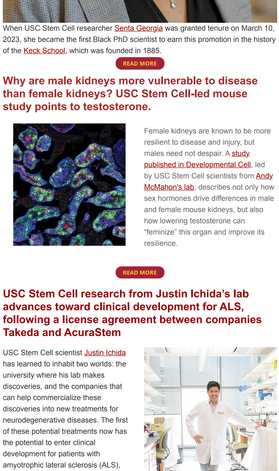
Senta Georgia reflects on Title IX and becoming the first Black PhD scientist to earn tenure at the Keck School of Medicine of USC



When USC Stem Cell researcher Senta Georgia was granted tenure on March 10, 2023, she became the first Black PhD scientist to earn this promotion in the history of the Keck School, which was founded in 1885.

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Why are male kidneys more vulnerable to disease than female kidneys? USC Stem Cell-led mouse study points to testosterone.

Female kidneys are known to be more resilient to disease and injury, but males need not despair. A study published in Developmental Cell, led by USC Stem Cell scientists from Andy McMahon's lab, describes not only how sex hormones drive differences in male and female mouse kidneys, but also how lowering testosterone can "feminize" this organ and improve its resilience.

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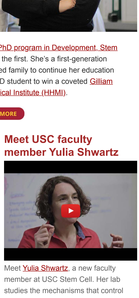
USC Stem Cell research from Justin Ichida's lab advances toward clinical development for ALS, following a license agreement between companies Takeda and AcuraStem



USC Stem Cell scientist Justin Ichida has learned to inhabit two worlds: the university where his lab makes discoveries, and the companies that can help commercialize these discoveries into new treatments for neurodegenerative diseases. The first of these potential treatments now has the potential to enter clinical development for patients with amyotrophic lateral sclerosis (ALS), following a recent license agreement between the pharmaceutical giant Takeda and AcuraStem, a startup co-founded by Ichida in 2016.

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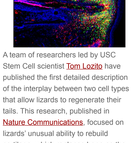
USC introduces an undergraduate minor in stem cell biology and regenerative medicine



Starting in Fall 2023, USC will offer one of the few undergraduate minors in stem cell biology and regenerative medicine in the U.S. To learn more, visit https://stemcell.keck.usc.edu/education.

Stem cell faculty member Francesca Mariani wins USC's highest honor for outstanding teaching

When Francesca Mariani learned that she would receive USC's highest honor for outstanding teaching, a 2023 Associates Award for Excellence in Teaching, it took her by surprise.

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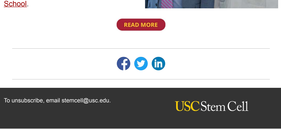
Stem Cell PhD student Alma Zuniga Munoz wins USC's first Gilliam Fellowship from the Howard Hughes Medical Institute



Alma Zuniga Munoz, a student in USC's PhD program in Development, Stem Cells, and Regeneration, is used to being the first. She's a first-generation American, the first member of her extended family to continue her education beyond high school, and the first USC PhD student to win a coveted Gilliam Fellowship from the Howard Hughes Medical Institute (HHMI).

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How to assemble a complete jaw

A USC-led team of scientists has made a drool-worthy discovery about how tendons and salivary glands develop in the jaw. Their results are published in a study in Developmental Cell.

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Meet USC faculty member Yulia Shwartz

Meet Yulia Shwartz, a new faculty member at USC Stem Cell. Her lab studies the mechanisms that control stem cell behavior in homeostasis, stress and aging, using the skin as a model.

Researchers unlock mysteries of cartilage regeneration in lizards

A team of researchers led by USC Stem Cell scientist Tom Lozito have published the first detailed description of the interplay between two cell types that allow lizards to regenerate their tails. This research, published in Nature Communications, focused on lizards' unusual ability to rebuild cartilage, which replaces bone as the main structural tissue in regenerated tails after tail loss.

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Journey towards 1,000 mini-kidneys begins with $1 million from KidneyX

To help patients in need of transplants, artificial kidneys would have to function like their natural counterparts, but they wouldn't necessarily have to look like them. With a $1 million prize from KidneyX, a team of USC Stem Cell scientists led by Nils Lindström in collaboration with Leonardo Morsut are on a quest to build a kidney that resembles the real thing in function, but not in form.

Potential relief for osteoarthritis moves to clinical trial after animal studies

A team of USC researchers have found a drug with the potential for curbing hyperinflammation from osteoarthritis, according to an animal study published in Science Translational Medicine.

"We saw a profound effect on joint pain, structure and function," said Denis Evseenko, a professor of orthopaedic surgery, stem cell research and regenerative medicine at the Keck School.

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