

The UC Davis Institute for Regenerative Cures

The Science

Stem cell and gene therapies work by using implanted cells, modified viruses and other complex products known as “living medicines” to change how a patient’s body responds to a disease, injury or illness. This allows healing that otherwise would not be possible. In addition to reversing damage from debilitating injuries, regenerative medicine has the potential to transform the lives of people living with genetic diseases and chronic illnesses like peripheral artery disease, osteoporosis, Huntington’s disease and pediatric neurological disorders like spina bifida. Many of the patients we serve are children living with genetic disorders.

Philanthropy is more important than ever for powering game-changing research in this burgeoning area of medicine. Investments in training tomorrow’s scientists, physicians and regenerative medicine support staff will help prepare a highly skilled workforce to carry this field forward. Gifts that enable faculty and early career physician-scientists to scale projects ahead of clinical trials are particularly valuable for accelerating discoveries out of the lab and into the world.



The Philanthropic Opportunities

Create unrestricted research funds to support seed grants and the development of pre-trial therapies

Support training programs for regenerative medicine workers to meet rapidly growing staffing needs

Fund an expansion of our production facilities to serve more researchers and patients

How Regenerative Medicine Changes Lives: Diana’s Story

Diana Souza enjoys the hard work it takes to manage her 23-acre ranch in Northern California. But a fall in 2011 left her with a badly broken arm, complicated by previous injuries. Even after several surgeries, Souza’s bone failed to heal and eventually became misaligned. “My arm was a complete mess. I faced a very real possibility of being left with only one working arm,” she said. “Fortunately, I found out about Dr. Mark Lee’s clinical trial.” Lee, an associate professor of surgery at the UC Davis School of Medicine, was confident that Souza’s arm could be healed by delivering mesenchymal stem cells, derived from her own bone marrow, to the site of the fracture. “I can fix this for you,” he told her.

Lee was right. Looking at X-rays of her arm several months after the stem cell procedure, Souza couldn’t believe how well her injuries had healed. Best of all, she regained function in her arm and was able to return to an active lifestyle. “It is incredible, after living with such a damaged and unhealthy arm for so long. It is really a new lease on life for me,” she said.