Stone Research Foundation

ANNUAL REPORT

Fall 2025

Harper Cullen • Surfer • Percutaneous Achilles Repair Patient

Our **vision** is to turn scientific discovery into regenerative therapies that accelerate healing and treat, prevent, and, ultimately cure arthritis.

Our **mission** is to pioneer new orthopaedic treatments that accelerate healing, enabling people to stay active through research, development, innovation, and education.

Stone Research Foundation

Letter From Our Leadership

Dear Friend of the Foundation,

It is our pleasure to share with you the 2025 Annual Report for the Stone Research Foundation (SRF). This past year marked major milestones in our progress toward a future free from joint pain. We extend our deep gratitude to you and our community of supporters who help accelerate our work, bringing regenerative science closer to clinical application. Together, we strive to keep you active for a lifetime.

Building on the findings from our $1.2M grant from the California Institute of Regenerative Medicine (CIRM), we are now entering a pivotal stage of research: testing novel therapies to repair and replace damaged cartilage in patients with osteoarthritis (OA) and sports-related injuries. With your dedicated support, we are taking the next step in bridging the gap between laboratory discoveries and application in the clinic, where these breakthroughs make a real difference in your daily life.

Our studies integrate advances in regenerative medicine with interventions tailored to each stage of injury. This work focuses on the mechanisms of recruiting and directing the body's own repair cells, called progenitor cells, to the site of injury. This approach builds upon the basic principles of stem cell science, activating your body's natural healing response to reduce inflammation, alleviate pain, and regenerate healthy cartilage.

Our goal is to solidify the basic science so that these treatments can be widely applied in veterinary practice by 2027 and into human clinical use by 2030. We are reminded that cartilage injuries and arthritis in horses are often life-threatening. We may be able to change those outcomes.

Your generosity, in partnership with our global network of scientific collaborators, advances our shared vision to accelerate healing and expand the knowledge needed to treat, prevent, and ultimately cure arthritis. Together, we're building upon our successes to empower you to live better and play forever.

Warmest Regards,

Mani Vessal, MA PhD
Senior Director of Research and Operations

Kevin R. Stone, MD
Founder & Chairman

Here's How You Help Us Transform the Future of Arthritis Care: ArtCart+

The Articular Cartilage Paste Graft (ArtCart) is a potent, proven solution to certain forms of arthritis. With hundreds of millions suffering worldwide, delivering this cartilage-regenerating procedure to more patients and expanding its application is at the heart of our mission. With your support, we have started developing the next generation of the technique (ArtCart+)—while also extending its benefits to veterinary medicine.

The SRF team concluded the two-year study with the California Institute of Regenerative Medicine (CIRM) designed to optimize the ArtCart procedure. By focusing on ways to enhance cartilage regeneration, shorten recovery, and standardize the technique, the study defined a clear path toward making this therapy widely accessible.

Our goal for 2024 was to improve the reliability of regrowing normal cartilage in a degradative environment. This research led to an improved paste preparation technique, using a novel hydrogel adhesive that makes the procedure easier for surgeons to perform and produces more robust cartilage. We call this enhanced version of the technique ArtCart+, and its development marks a significant step toward treating, preventing, and ultimately curing arthritis.

The study's findings will help make ArtCart+ available to veterinarians by 2027 to treat arthritis in horses and dogs. This will pave the way for further trials and broader clinical use in humans.

ArtCart+ offers a long-overdue solution to OA without the risks or limitations of existing procedures. Thanks to your contributions, this breakthrough could give millions of patients suffering from joint pain access to life-changing surgical care, eliminating years of avoidable pain and delayed treatment.

You Support Solutions That Replace Decades of Pain With Active Living

In 1994, a serious ski injury left Patty sidelined from the active life that defined her. Hiking, biking, and skiing became impossible, and conventional care offered little beyond decades of pain management until she was old enough to qualify for a knee replacement.

Instead, Patty became one of the first patients to receive an Articular Cartilage Paste Graft at The Stone Clinic, a novel surgical technique pioneered by Dr. Stone and developed through SRF research. The graft successfully regenerated healthy cartilage in her knee, returning Patty to full ativity.

Thanks to this procedure, Patty shared her love of skiing with her daughters on the slopes of Sun Valley, watched her granddaughters discover the joy of skiing, and continues to bond with her family and their labrador on long, alpine hikes that she calls her "happy place."

Now in her 31st year post-surgery, Patty remains a force of nature. Her operative knee remains strong. She continues to snowshoe, garden, and golf. Patty even added a highlight to her athletic journey at 77, scoring her first hole-in-one.

Patty's story demonstrates how the science you support restores more than motion. It promotes vitality, connection, and joy across generations.

> ***"ArtCart made a huge impact on my life. It allows me to do the things that make me happy and keep me going every day."***

You Help Advance ArtCart+ In Humans and Animals

Your support made possible the development of ArtCart+, the next generation of the Articular Cartilage Paste Graft technique, while extending SRF cartilage research to the veterinary world.

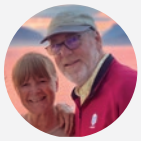
In partnership with veterinary surgeon David Frisbie, DVM, PhD, at Colorado State University (CSU), SRF is completing an equine study evaluating ArtCart+. This enhanced procedure builds upon our previous findings to further improve cartilage regeneration. Our work positions the technique for near-term regulatory approval in horses and dogs, while also building the pathway toward an FDA-approved human clinical trial.

Your support ensures that the science of cartilage regeneration moves beyond isolated success toward wider adoption. Once the initial results are confirmed in our upcoming studies, this therapy will deliver lasting relief and restored mobility to the countless patients and large animals in need of better treatment solutions.

Collaborator

David Frisbie, DVM, PhD, Dipl. ACVS, ACVS-MR - Professor of Equine Surgery at Colorado State University

Mike & Judy Miller



Mike and Judy Miller's generosity made possible our first study of the Articular Cartilage Paste Graft technique in equine patients. Guided by a shared passion for medical innovation and their love of horses, the Millers helped launch the Articular Cartilage Paste Graft optimization program, bringing this augmented procedure one step closer to clinical use. We are deeply grateful for their vital partnership in advancing some of our most promising work to date.

Laura Yee • Hiker & Skier • ACL Reconstruction & Robotic Partial Knee Replacement Patient at the summit of Mt. Fuji

Dr. Annette McCoy, Dr. Matthew Wheeler, and their team with SRF's Simaron Dhillon and Dr. Mani Vessal at the University of Illinois following the Alpha Gal surgeries.

Your Generosity Helps Harness Molecular Science to Enhance Cartilage Repair

SRF continues to expand the possibilities of cartilage regeneration. Building on the proven strength of the Articular Cartilage Paste Graft, our latest project explores a molecular-level strategy to accelerate cartilage growth using the Alpha-Gal carbohydrate.

Alpha-Gal is a sugar molecule that the human immune system is naturally primed to recognize and respond to. In partnership with Dr. Uri Galili, PhD, who discovered how to harness this mechanism, and Dr. Matthew Wheeler, PhD at the University of Illinois, we are investigating the potential of Alpha-Gal to stimulate cartilage repair in arthritic joints. When added to ArtCart, this approach may trigger a stronger healing response that promotes faster cartilage regeneration.

Thanks to supporters like you, we are leveraging emerging science to explore fresh, innovative ways to accelerate healing and restore pain-free lives.

Collaborator
Matthew Wheeler, PhD, FAAAS
Professor of Biotechnology & Developmental Biology at University of Illinois, Urbana-Champaign

Your Support Helps Patients with Arthritic Ankles Find Life-Changing Treatment

At 37, Annie faced a devastating future. A teenage ankle injury had spiraled into severe arthritis, leaving her with constant pain and an ever-present fear that every step might be the one that ended her mobility for good. After consulting more than a dozen surgeons in Canada and the U.S., Annie was told the same thing every time: live with the pain for as long as possible, then undergo an ankle fusion—a procedure that would lock her joint forever and set off a cascade of decline.

Annie refused to accept that fate. Instead, she turned to Dr. Stone's Articular Cartilage Paste Graft (ArtCart). This minimally invasive procedure successfully regenerates cartilage to repair ankle cartilage defects in a way no standard procedure can. "When I finally heard a positive answer about my ankle, I got emotional. This was the only solution I could find to fix it," she recalls.

Two years after her ArtCart procedure, Annie lives free from the fears that once ruled her life. She can walk 20,000 steps pain-free and is back in jiu-jitsu training—running warmups, sparring, even jumping. For the first time in years, she dreams of new adventures, including climbing Mount Fuji with her family. "I feel like my ankle has been saved," she says.

> ***"This procedure gave me hope that my future can be that of a normal, active person—not someone waiting for their body to break down."***

You Power Breakthroughs That Redefine Non-Operative Joint Care

Orthobiologic injections offer a powerful non-operative approach to joint injuries. SRF is leading a head-to-head study to determine which of these therapies offer the most effective and lasting relief from pain and inflammation.

Current injectables remain inadequate. Cortisone, the most common injection, may reduce symptoms in the short term, but degrades tissue and increases the risk of complications over time. Orthobiologic injections present a promising, regenerative approach—but the field has yet to establish which injectables offer the most significant, lasting benefit. We believe that patients deserve regenerative therapies that truly deliver the best outcomes.

To achieve this future, we are conducting a comprehensive trial of orthobiologic injections in partnership with Daniel Grande, PhD, President of the International Cartilage Research Society (ICRS) and Director of Orthopaedic Research at The Feinstein Institutes for Medical Research. This study will compare leading joint pain injections to determine which is safest and most effective.

Your generosity makes it possible to establish a new benchmark in non-operative care, delivering safer, more effective therapies for millions living with joint pain.

Collaborator
Daniel Grande, PhD
Associate Investigator Feinstein Institute

Welcoming Our New SRF Fellow

As part of our ongoing commitment to advancing education and research, SRF is pleased to welcome Yalnaz Mohasin, MD as a new Stone Research Fellow who has joined our collaborative projects in Dr. Grande's lab at the Feinstein Institutes for Medical Research in New York. This partnership continues to strengthen our shared mission of fostering innovation and excellence in orthopaedic science.

Your Support Unlocks New Ways to Accelerate Recovery

Gzim Zeneli • Rugby Player • Meniscus Transplant & Ligament Repair Patient

SRF is evaluating testosterone therapy to help patients preserve muscle, maintain strength, and return to activity faster after surgery.

Orthopaedic procedures often cause more than temporary downtime—they can trigger muscle loss that seriously delays a return to full fitness.

Injury and surgery induce muscle atrophy that often takes a year to recover from. Pre-surgery testosterone therapy may offer a novel way to preserve muscle and promote healing after surgery. Our 2019 pilot study, funded by donors like you, confirmed the safety of this approach and provided early insight into its clinical viability. Now SRF will embark on a multi-site trial to evaluate how testosterone therapy can improve outcomes across a range of orthopaedic procedures.

With your continued support, we can transform surgical recovery, reducing the toll of muscle loss and giving patients a quicker, stronger return to the lives they love.

You Help Patients Like Kathleen Thrive Without Surgery

A devastating fall left Kathleen with a completely severed rotator cuff. For months she lived in constant pain, unable to sleep comfortably or even lift her arm for simple tasks. Surgery was her only option...or so it seemed.

Instead, Kathleen turned to an injection therapy evaluated by SRF research: a biologic injection combining hyaluronic acid (HA) with platelet-rich plasma (PRP). Aided by physical therapy, Kathleen's pain disappeared and her shoulder regained full range of motion. She canceled her scheduled surgery and has continued periodic treatments ever since, avoiding invasive intervention altogether.

Today, in her late seventies, Kathleen lives the life she thought she'd lost. She teaches Tai Chi up to three times a day, skis recreationally, and continues to enjoy movement and community with her students. "I see people 10 years younger than me struggling," she says, "and I'm still out here doing what I love."

Kathleen's story demonstrates how therapeutic injections can give athletes lasting freedom—keeping them strong, independent, and fully engaged in the lives they love well into their golden years.

> ***"It's a shame these therapies aren't more widespread. The benefits are tremendous— they've helped me recover without the trauma of surgery."***

Contributions to the World of Orthopaedic Science

61
Peer-Reviewed Publications

25
Conferences Hosted

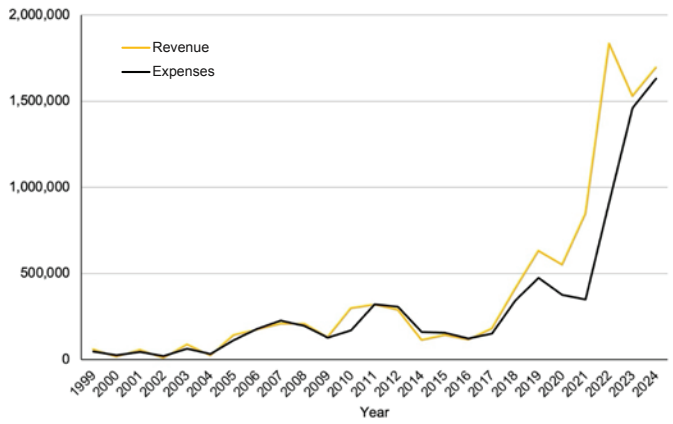
37
Poster Presentations

155
Podium Presentations

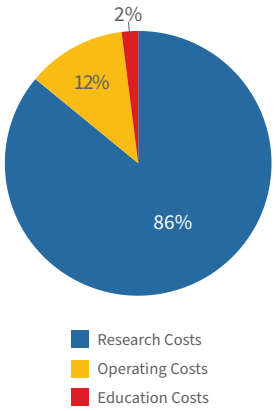
83
Post-Graduate Fellows & Interns

Financial Snapshot

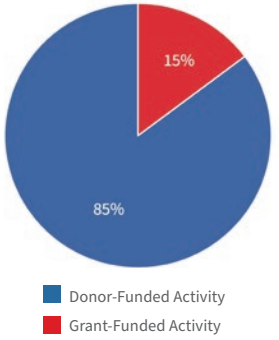
SRF Organizational Growth Chart



SRF 2024 Expenses By Percentage



SRF 2024 Grant vs. Donor-Funded Activity



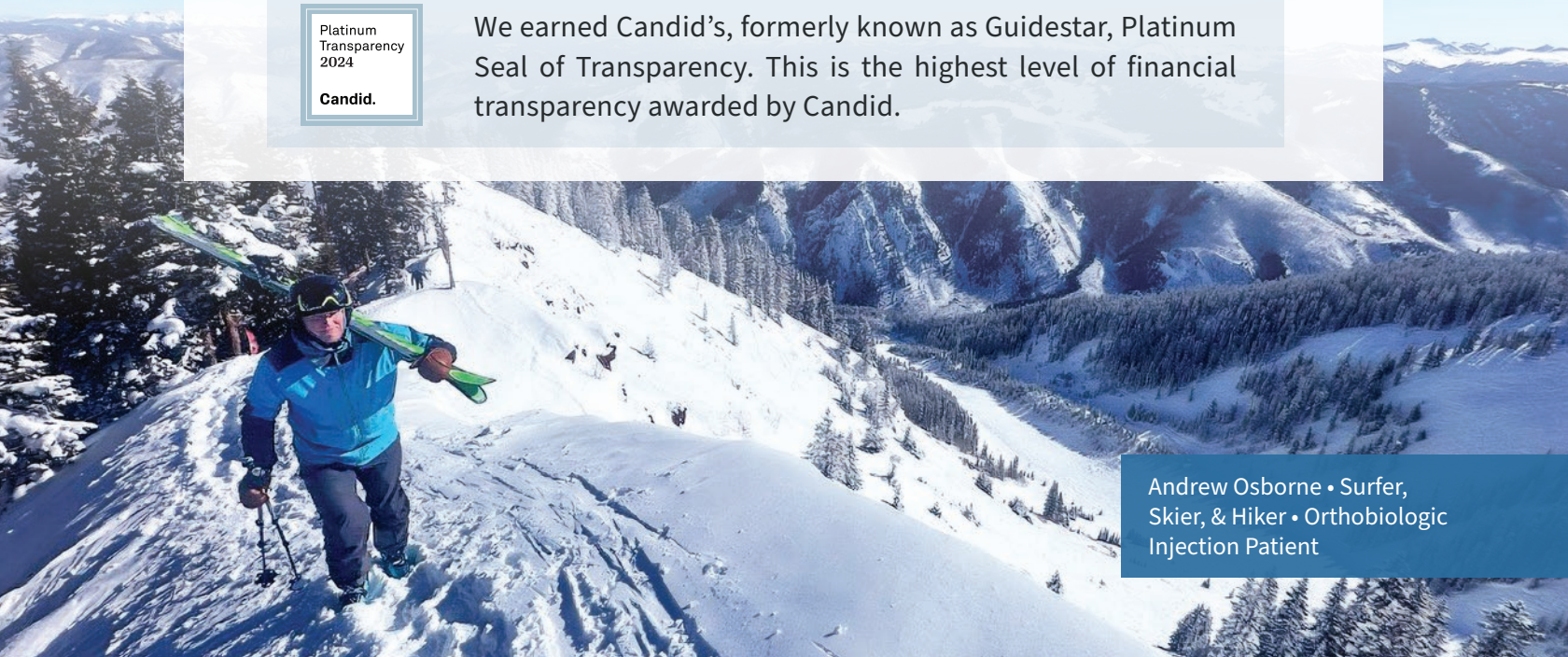
Stone Research Foundation Financials for 2024

Revenue
$1,695,843

Expenses
$1,631,088

Platinum Transparency 2024
Candid.

We earned Candid's, formerly known as Guidestar, Platinum Seal of Transparency. This is the highest level of financial transparency awarded by Candid.



Andrew Osborne • Surfer, Skier, & Hiker • Orthobiologic Injection Patient

Donors Who Make A Difference

Stone Research Foundation is proud to recognize the generous individuals who play a pivotal role in advancing our mission. Their extraordinary support fuels innovation, accelerates discovery, and brings us closer to life-changing breakthroughs.

Mark and Laura Bailey

We extend our deepest gratitude to Mark and Laura Bailey for their remarkable commitment to advancing our mission. After Laura's successful knee treatment at The Stone Clinic, the Baileys were inspired to bring key scientific advancements to patients everywhere. Since then, they've become pivotal donors and valued members of our Leadership Council. Mark's active involvement as an Executive Board member, from kindly hosting the 2025 Annual Board Meeting to sharing his insightful perspectives, has shaped the future of the Foundation and guided us toward success. We are truly appreciative of all Mark and Laura have done through their exemplary support and leadership.

Tim Strickler

Tim has been an avid supporter of the Foundation since 2023, when he initially participated in a clinical trial through SRF. His enthusiasm for hiking, coupled with his passion for improving lives, led Tim to become a dedicated donor, Chair of the Leadership Council, and an invaluable Executive Board Member. Committed to making a lasting impact, Tim has exhibited leadership by sharing his valuable insights and inspiring innovative fundraising approaches. We are thankful for Tim's partnership and the difference he continues to make.

Tom & Gay O'Neal

We are grateful to recognize Tom and Gay O'Neal for all they do to make our work possible. Tom has been a longstanding member of our Leadership Council and has led the integral logistics and acquisition of resources for our equine Articular Cartilage Paste Graft study, which launched in 2024. Tom also helped cultivate a partnership between the Foundation and Dr. Mark DeCoster at Louisiana State University, opening the door to a new project studying how harnessing small molecules may further accelerate cartilage repair. Our sincere thanks to Tom and Gay for the relationships they've built and the lasting impact of their gifts in advancing patient care.

Vinod Khosla

We would like to extend our gratitude to Vinod Khosla for his input and generous contributions. Vinod's collaboration helps advance regenerative-focused treatments that bring us closer to truly optimized post-surgical recovery. His commitment to innovation supports research that uncovers safe new ways to accelerate healing.

David & Julie Van Scott

David & Julie Van Scott are new friends of the Foundation. We wish to express sincere appreciation for their belief in our work and the impact of their generosity. Their dedication to advancing medical science honors the legacy of David's father, Dr. Eugene J. Van Scott, whose lifelong dedication to research and patient care continues to inspire them. Their gift continues a family tradition of discovery and innovation that helps people everywhere live healthier, fuller lives.

Brett Torino

Brett Torino's relationship with the Foundation began in 2023 at the American Academy of Orthopaedic Surgeons (AAOS) Conference. Drawing on his leadership experience in both business and philanthropy, Brett's contributions provide essential support for developing innovative treatments in arthritis care and sports medicine. We're grateful for Brett's commitment and the meaningful difference he has made to our research.

In Memoriam: D'Arcy Roche

D'Arcy Roche was more than a grateful patient and donor—he was a steadfast believer in the Foundation's vision of curing chronic osteoarthritis. For decades, conventional wisdom held that "there is no cure for OA," but D'Arcy never accepted that limitation. His confidence in SRF's pioneering work inspired him to volunteer countless hours and support advancing the Foundation's research toward clinical trials.

Together with his wife, Stephanie Twomey, D'Arcy's generosity and shared belief in the power of science have left a lasting impact on our mission. We are profoundly grateful for their partnership, vision, and spirit—an important legacy that continues to guide our work.

Leadership Council of the Board

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Mark Bailey
Laura Bailey
Jennifer Brinkley
Rick Kimball
Tom O'Neal
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Randy Quirk
Ryan Stone (Advisor to Exec. Board)
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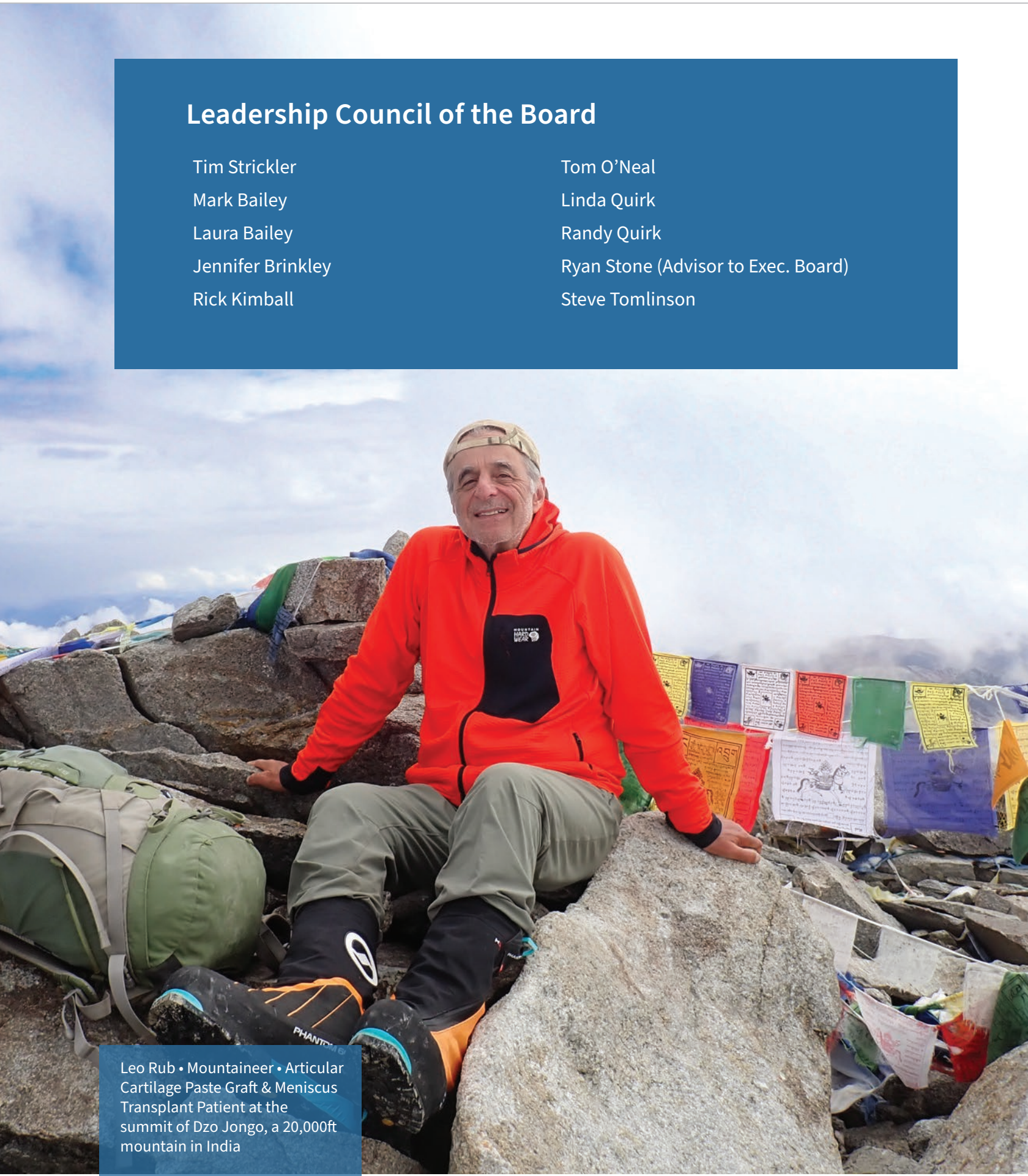

Leo Rub • Mountaineer • Articular Cartilage Paste Graft & Meniscus Transplant Patient at the summit of Dzo Jongo, a 20,000ft mountain in India

Thank You to All of Our Donors

Major Gift Contributors		
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Brett Torino	Tom & Gay O'Neal	Randy & Linda Quirk
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Collaborators

David Frisbie, DVM, PhD, Dipl. ACVS, ACVS-MR — Professor & Orthopaedic Surgeon, College of Veterinary Medicine and Biomedical Sciences at Colorado State University

Daniel Grande, PhD — Professor of Molecular Medicine & Orthopaedic Surgery at Feinstein Institutes for Medical Research; President of International Cartilage Regeneration & Joint Preservation Society (ICRS)

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Richard Strafehl — Co-Founder at Meridius Bio

W.M. (Bill) Cheliak — Co-Founder at Meridius Bio

Matthew Wheeler, PhD — Professor of Biotechnology & Developmental Biology at University of Illinois, Urbana-Champaign

Mark A. DeCoster, PhD — Associate Director, Department of Biomedical Engineering at Louisiana Tech

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Together, We Can Achieve More – Donate Today!

Stone Research Foundation

Online: stoneresearch.org/donate

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