

Progress in **RESEARCH**

Spring 2025

Dear Supporters,

For far too long, individuals living with spinal cord injuries (SCI) have waited for a breakthrough — something designed *specifically* for their needs, something that doesn't just manage symptoms but actively improves their lives. Now, for the first time in history, we have it.

The **ARC_{EX}[®] System** is the first-ever FDA-approved technology developed specifically for the SCI community, marking a monumental step forward in our mission to deliver real, life-changing solutions. The Christopher & Dana Reeve Foundation played a critical role in bringing this technology forward, ensuring that innovation in SCI research leads to tangible outcomes — not just theories or distant possibilities, but real, functional gains.

This is a historic moment — and we celebrate it — but our work is far from over. Instead, this milestone underscores the importance of our work and proves what we've always believed: meaningful progress is possible, and it only happens with bold investment and active collaborations.

The approval of ARC_{EX}[®] is just the beginning. Now, we must push even harder to pursue other groundbreaking therapies, ensuring that the SCI community has access to the full spectrum of solutions they deserve.

To advance these efforts, the Christopher & Dana Reeve Foundation will announce new grants awarded via our recently launched Requests for Application (RFAs) from industry and academia seeking support for preclinical research. We are eager to invest in a diverse range of approaches — from repurposed drugs to gene therapy approaches, and more — ensuring we explore every promising avenue to drive progress toward meaningful recovery.

This is a time of unprecedented momentum. With your support, we can accelerate the development of new technologies, therapeutics and interventions that will further transform lives. Together, we can ensure ARC_{EX}[®] is the first of many victories for the SCI community.

With gratitude and optimism,

Dr. Marco Baptista

Chief Scientific Officer

Christopher & Dana Reeve Foundation



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A HISTORIC LEAP FORWARD: FDA APPROVES FIRST SCI-SPECIFIC THERAPY

The Christopher & Dana Reeve Foundation is thrilled to celebrate a groundbreaking milestone in SCI treatment announced by our industry partner, ONWARD Medical: the first-ever FDA-approved technology designed specifically for the SCI community. The ARC_{EX}® System, the world's first non-invasive spinal cord stimulation therapy, has demonstrated significant improvements in hand strength and sensation for individuals living with SCI.

Named one of *TIME Magazine's* Best Inventions of 2024, the ARC_{EX}® System has already shown transformative potential. Clinical trials revealed that participants regained critical abilities that are essential to daily independence. This FDA market authorization allows the ARC_{EX}® System to be used in clinical settings, with home-use authorization anticipated later.

A Breakthrough Rooted in Science

The FDA approval of the ARC_{EX}® follows ONWARD Medical's pivotal global clinical trial, published in *Nature Medicine*. The results were astounding: 90% of participants experienced improved strength or function, 87% reported enhanced quality of life, and benefits were observed up to 34 years post-injury. The trial included 65 participants across 14 of the world's leading rehabilitation centers.

"Regaining hand ability is the highest treatment priority for people with paralysis, five-fold higher than regaining all other abilities lost to injury," said Chet Moritz, PhD, Professor of Rehabilitation Medicine at the University of Washington and a member of the Foundation's Scientific Advisory Board. "I believe the ARC_{EX}® System will have a tremendous impact on the quality of life of people living with SCI."

Clinicians across the US are excited to have access to this breakthrough technology, to give patients an opportunity to dramatically improve their lives.

Driving Impact Through Partnerships

Two decades ago, the Christopher & Dana Reeve Foundation identified neurostimulation as one of the most promising areas of research. By targeting the spinal cord with electrical stimulation, researchers believed they could help restore lost function, including movement, bladder control, blood pressure regulation, and more.



Our longstanding partnership with ONWARD Medical, bolstered by grants to .NeuroRestore and investments through SCI Ventures, exemplifies the power of collaboration between nonprofits, academia, and industry in driving innovation.

This revolutionary approval is a testament to the vision, dedication, and persistence of countless researchers, clinicians, advocates, and supporters. "No longer will people be sent home and told nothing can be done to help them regain these abilities after their injury," said ONWARD Medical CEO Dave Marver. "We hope this is the first of many therapies we will introduce to help people regain independence from paralysis and other movement disabilities."

Pioneering the Future of SCI Recovery

The road to this achievement has been paved with bold vision, unwavering determination, and an unrelenting belief in the power of science. The Reeve Foundation's steadfast supporters have been instrumental in making this moment possible — and this FDA approval is a shared victory.

But this is just the beginning. With breakthroughs like the ARC_{EX}® System, we are on the cusp of transforming lives in ways once thought impossible. Together, we are proving that SCI does not have to mean a lifetime of paralysis, and paralysis does not have to mean a diminished quality of life.

Learn more and stay updated by visiting [ONWARD Medical's official site](#) to register for news and information on rehabilitation centers where the ARC_{EX}® System will soon be available. ◦

TEE UP FOR SCI DISCOVERY AT THE REEVE GOLF CLASSIC 2025

This year's Reeve Golf Classic will tee off on August 18, 2025, at the legendary Winged Foot Golf Club in Mamaroneck, NY!

This exclusive event offers the rare opportunity to play one of the nation's most prestigious courses — all while advancing our mission: to cure SCI and improve the lives of those living with paralysis. Last year's event raised over \$800,000 for groundbreaking research and life-changing programs.

Enjoy a full day of world-class golf, gourmet dining, and lively entertainment, all in support of innovation and hope. Whether you're competing on the course or joining as a sponsor, your participation makes an impact.

Golfers, please register by Thursday, May 15 at ChristopherReeve.org/Golf.



For sponsorship opportunities, contact events@reeve.org. Let's make every swing count!

ADVANCING THE NEXT GENERATION OF BREAKTHROUGHS: A UNIQUE FUNDING OPPORTUNITY

Unlike large pharmaceutical companies, small biotech companies and academic labs often lack the necessary resources to conduct essential early research. To complicate matters, limited data sharing across industry, academia, and researchers creates barriers that can slow the pace of discovery.

To bridge these critical gaps, the Christopher & Dana Reeve Foundation and Spinal Research (UK) are partnering on a novel approach to advancing SCI research with a joint call for RFAs. The new initiative aims to strengthen the research pipeline by supporting critical early-stage research. "This RFA provides crucial support for preclinical studies, helping researchers establish key factors such as potency, selectivity, and biological mechanisms of action of potential therapeutics," says Marco Baptista, Ph.D., Chief Scientific Officer of the Christopher & Dana Reeve Foundation. "Our goal is

to promote an understanding of proposed therapeutics to encourage greater investment — research dollars — and prepare for the next stages of scientific development." Funding awards of up to \$250,000 will be announced in 2025.

Investing in Research and Data Sharing

Data sharing between researchers, industry leaders, and academic institutions is a key component in driving progress. By fostering an environment where discoveries and insights are openly shared, Reeve aims to accelerate the development of effective therapies.

"Supported projects must contribute to open data-sharing initiatives, ensuring research findings are findable, accessible, interoperable, and reusable (FAIR)," Baptista says. "We also encourage open-access publications to maximize the impact of discoveries across the field."

Charting the Path to Clinical Success

Unlike traditional funding sources that prioritize late-stage clinical trials, the Reeve Foundation is investing in early-stage translational work to ensure that promising discoveries have the solid scientific foundation required to advance successfully.

“We’re addressing a need in a way that’s quite unique. Many small biotech and academic labs don’t have access to the same resources as big

pharma, and that can stall critical research projects,” Baptista says. “We’re here to help researchers collect the data they’ll need for eventual clinical success.”

By prioritizing early-stage discovery and providing financial and strategic support, the Christopher & Dana Reeve Foundation is strengthening the future of SCI therapeutics and advancing the potential for transformative treatments. ◦

SCI INVESTORS SYMPOSIUM 2025: EXPANDING COLLABORATION, ACCELERATING PROGRESS

The third annual [SCI Investors Symposium](#), co-presented by the Reeve Foundation and Lineage Cell Therapeutics, Inc., is set for June 27, 2025 (to be held virtually), will once again unite key organizations to drive innovation in SCI research.

“As in previous years, the 2025 SCI Investors Symposium will include presentations featuring both preclinical and clinical research, offering deeper insights into what’s moving through the pipeline toward human trials,” says Marco Baptista, Ph.D., Chief Scientific Officer of the Christopher & Dana Reeve Foundation. “At the heart of these conversations is a commitment to patient-driven, needs-based research, ensuring that therapeutic development aligns with the priorities of people living with SCI.”

By bringing together researchers, industry leaders, and individuals with lived experience, the event fosters meaningful dialogue about what truly matters to the SCI community. These discussions play a critical role in shaping research strategies and guiding the development of therapies that will have real-world impact.



As the SCI field continues to evolve, collaboration is essential. The SCI Investors Symposium is more than a conference — it’s a working event where the brightest minds in science, industry, and advocacy come together to break down silos, tackle shared challenges, and accelerate progress toward new treatment paradigms. ◦

REEVE FOUNDATION'S SCIENTIFIC ADVISORY BOARD: ARMIN CURT, M.D.

Armin Curt, M.D., grew up in Cologne, Germany, in a family of four children — with no relation to medicine. His parents ran a small textile manufacturing business, which exposed Curt early on to all sorts of people in myriad professions — a marvelous mixture, he called it. But what drew Curt to medicine was his ailing grandmother.

“She was nearly blind and barely able to walk because of bad arthritis,” Curt says. “I wanted to learn how to help her.” Curt went to medical school in Germany, aiming to become a general practitioner, but became fortuitously sidetracked by neurology and during a rotation in Zurich, he developed a fascination with SCI and recovery.

In Zurich, Curt set out to understand spinal cord physiology, and how that physiology changes in response to different types of injuries. He has since specialized in paraplegia at Balgrist University Hospital. Both a scientist and clinician, Curt is the lead of the European Multi-Center Study for SCI, a dedicated research effort to uncover innovative treatments for people with SCI.

A Historical Journey

Throughout his career, Curt has taken a keen interest in the history of SCI, particularly its roots in World War II. To prepare for D-Day in 1942, the Medical Research Council in London, together with the allied forces, began thinking about how to care for the soldiers who were paralyzed from gunshot wounds — and they built the first SCI unit in England.

“At the time, spinal cord injury was a death sentence,” Curt says. “Soldiers either died acutely or due to chronic complications months down the line; it was just a question of time.” But over the past several decades, the field learned that people could recover from SCI. “We now know that these



young people can get back to work. They can get back to their families,” Curt says.

Still, when Curt started his career in SCI, he was skeptical. “I figured I would only last a year because we were limited in what we could achieve,” Curt says. But today he is part of a dedicated community of physicians and scientists who are helping people with SCI recover function and mobility.

“Once we understand the elements of recovery and disentangle which elements represent neural recovery and which represent increases in the individual patient’s skillfulness, adaptation and compensation as part of rehabilitation, we can better predict the degree of recovery a patient can expect,” Curt says.

A Multi-Modal Approach to Treating SCI

Over the past two decades, scientists have not only begun to learn about the underpinnings of spinal cord physiology, but they’re also beginning to uncover innovative treatments to address functional repair and recovery.

Today, there are several options, from epidural stimulation and neuromodulation to medication and human neural stem cell transplantation to treat people with SCI. “But there’s no single intervention that can cure SCI,” Curt says. Instead,

scientists need to take a multi-layered approach incorporating myriad interventions to affect change.

“Now is the time for well-designed combinatorial trials to address complex barriers and enable neural repair,” Curt says. “We need to come up with smart trial designs that apply different approaches in a timely and coordinated fashion to amplify the effects that we might see with a standalone intervention,” — and that requires collaboration. Fortunately, SCI has a tight-knit scientific community with a vested interest in sharing data and research findings.

“As a clinician, I have very long interactions with patients over the years, and their needs, urgencies

and wishes are very close to me,” Curt says. “I see patients who don’t experience major recovery improvements but who still lead impressive lives — and when patients recover function unexpectedly, well, those are always the best days.”

Dr. Curt is part of our Christopher & Dana Reeve Foundation Scientific Advisory Board. It is comprised of senior and junior investigators from across the globe and in numerous scientific sectors and serves as a sounding board for the Foundation, offering innovative ideas and honest feedback as we search for the most promising research and development opportunities that will provide the greatest impact for community members. ◦

TEAM REEVE® SPOTLIGHT: MARTIN QUINN

PHOTOS BY: JOHNNIE IZQUIERDO

The excruciating headache hit Martin Quinn on a cold March morning midway through his second semester at Colorado College. The timing wasn’t great. He had an accounting exam in a couple of hours and plans to ski the next day. He popped an Advil, hustled to class and assumed the headache would fade.

Born and raised in Ireland, Martin had long dreamed of studying in the U.S — and now here he was. He’d spent his first season on campus making friends and helping the men’s soccer team notch win after win. College was everything he hoped it would be.

But on that winter day, something wasn’t right.

By midnight, the pain was too much to ignore. Martin went to the health center where he tried to go to the bathroom but found he couldn’t walk.



That’s the last thing he remembers before slipping into a coma. When he woke five days later, he learned he was paralyzed.

It would take nearly a month before an infectious disease specialist deduced that an Epstein-Barr

viral infection had settled in Martin's brain and spinal cord, causing a rare case of paralysis. But even in those uncertain early days — and over the next six months as he relearned to walk during intense rehabilitation — Martin was guided by an unshakeable optimism that everything would be okay.

And, amazingly, it was. He returned to campus that fall and scored the winning goal in the Tigers' first game of the season.

"Back then, I thought it all had to do with willpower and positive thinking," Martin says. "Now, I think it was pure luck. I know how quickly it could've gone the other way."

On April 21st, Martin will compete in the Boston Marathon to raise funds for the Christopher & Dana Reeve Foundation. For the healthcare executive and father of three, the race — arriving 25 years after the illness that nearly changed his life — offers the chance to not only raise money for research but also spotlight Reeve's critical quality-of-life initiatives.

"Reeve is all about meeting people where they are and helping them have a better tomorrow," Martin says. "It's not just about research. It's about how you have the most productive life with paralysis. Care has an impact today and every day. That's something I connect with."

For years after his recovery, Martin pushed the illness, and life that might have been, from his mind. But in 2008, while living in London, he encountered a wheelchair athlete steadily pushing up the slight incline over Tower Bridge during the London Marathon.

"I was immediately emotional," Martin says. "I was part of that community for a really short time and that flashed back to me when I saw him on the bridge."

The athlete's determination inspired Martin to begin volunteering with a UK-based spinal charity. When he moved back to the U.S, he knew he wanted to become more involved with the



community. After hearing about the help Reeve's National Paralysis Resource Center provided for a friend's father who'd had a stroke, he called up Team Reeve.

"The only way I knew how to help was to run," he says.

But it's not only on the course where Martin's efforts to raise awareness will have an impact. [His extraordinary story and commitment to the Reeve Foundation is being beamed across the country by marathon sponsor Bank of America in a promotional campaign and social media blitz.](#)

"That's one of the things I'm most excited about," Martin says. "The name recognition for Reeve and its mission is just going to go up."

As Martin gears up for the race, he's bracing for the emotions he expects to hit him along the way. His wife and children will travel from California to cheer him on with family members from Ireland. His father will don a bib and run with him, 25 years after he waited five days in a hospital for his son to wake up. Mile by mile, dollar by dollar, Martin hopes to make a difference for people with stories that unfolded differently than his own.

"You realize you got lucky, and you can give back a little bit," Martin says. "When I run Boston, I know that every step of the way I'll be thinking about Reeve."

To support Martin Quinn's efforts for Team Reeve, please visit [his fundraising website.](#)

SUPER/MAN: THE CHRISTOPHER REEVE STORY

Twenty years after Christopher Reeve's passing, *Super/Man: The Christopher Reeve Story* brings SCI to the global spotlight — a level of visibility too often denied to those living with disabilities — while offering a deeper look at the ambitions and complexities that defined Reeve's life.

Though the world knew him as Superman, those closest to him remember a man who was so much more. He was an athlete, an advocate, a husband, a father — and a tireless champion for SCI research. The film doesn't shy away from the full scope of his life, balancing his remarkable achievements with the unflinching realities of his personal struggles, including his relentless pursuit of medical breakthroughs.

"We wanted whoever made this to create a 360-degree portrait of a human who was incredible and flawed, who was heroic and brave, who had fears and worries," says Matthew Reeve, a member of the Reeve Foundation Board of Directors.

Yet, *Super/Man* isn't just a retrospective — it's a call to action. As the film garnered critical and commercial acclaim, it also sparked meaningful conversations about disability and the ongoing fight for progress. For the Reeve family and the Foundation, that dialogue is a testament to Christopher's enduring impact.

"The Reeve Foundation is a central element of my parents' legacy," Will Reeve, also a Board member, says. "My siblings and I were intent on showing the good work that the Foundation did during my parents' lifetimes, has done since their deaths, and will continue to do as far into the future as it needs to exist."



From personal tragedy to national advocacy, Christopher and Dana Reeve's mission continues. In recognition of their legacy and the vital work that lies ahead, Warner Bros. Discovery has made a generous donation to support the Reeve Foundation – helping to carry forward the vision of a world in which spinal cord injury does not result in paralysis and paralysis does not result in diminished quality of life. ○

SUPPORTING THE CHRISTOPHER & DANA REEVE FOUNDATION

For more than 20 years, the Reeve Foundation has operated the National Paralysis Resource Center (NPRC) through a competitive cooperative grant housed at the U.S. Department of Health and Human Services (HHS).

The Reeve Foundation is the only federally funded entity dedicated to directly supporting the paralysis community. As the recognized leader in the field, we provide free, comprehensive information and personalized resources directly to the paralysis community. Through our Quality of Life Grants program, we have invested more than \$46 million in nonprofit organizations that empower people living with paralysis, their families and caregivers across all 50 states, Washington D.C., and U.S. territories.

This work is made possible through the congressional appropriations process, for which we actively advocate each year. Your voice is powerful in ensuring the NPRC remains a lifeline for those who need it most. [Join our advocacy efforts today.](#)

Additionally, your donations strengthen our ability to create a future where spinal cord injury doesn't result in paralysis, and paralysis does not result in diminished quality of life. [Please consider making a gift to sustain this mission.](#)

Together, we can ensure this work continues. ○