

You, Kessler Foundation, and COVID-19

During the challenging and uncertain times in which we've found ourselves, please know that all of us at Kessler Foundation are deeply concerned for you and your family and wish you peace and good health. The health and safety of our employees and research participants are of paramount importance. Therefore, in response to COVID-19, all Kessler Foundation employees have been encouraged to work remotely, focusing on work that does not require physical contact with research participants, many of whom may be at greater risk for complications associated with coronavirus.

We are truly grateful for your commitment to rehabilitation research and employment for people with disabilities. We are confident that we will get through this together.

A DOUBLE WIN AT THE ARC

Donors Like You Create Pathways to Employment and Raise Acceptance of Employees with Disabilities

It's been a **win-win** for my son and the police department of Marlboro, NJ," says Harold Zehl, father of 20-year-old Matthew, deeming the changes he witnessed in his son **remarkable**.

Matthew participated in a unique employment program developed by The Arc of the United States and supported by Kessler Foundation and donors like you. Designed for young adults with intellectual and developmental disabilities, the program begins with their internship as cadets at first responder agencies. The program also provides comprehensive disability awareness training for first responders. At the end of the program, cadets—who have received instruction on searching for jobs, developing their resumes, and navigating transportation to and from work—attend a job fair to facilitate job placement.

Before this program, Matthew was unsuccessful in keeping a job. His father explains, "Since Matthew was young, he would have frequent, hard-to-control outbursts that caused him to be bullied and misunderstood. Now, with his experience as a cadet in the forensics lab and courthouse, and his positive interactions with police officers, he's changed. He's more self-disciplined, respectful, and meticulous. **Because of donors like you, our family has hope for Matthew's future.**"

Matthew says he enjoyed helping and working with the Marlboro police officers. "They got me," Matthew emphasizes. "They were nice to me and explained things. I always wanted to work hard for them." Now that he's graduated from the program, Matthew is looking to secure employment.

"My son and family benefitted in a big way," says Harold. "Matthew felt like the police respected him. The police officers gained too: experience with people who have disabilities—how to train them, work with them, and accept them." ■



Matthew Zehl and New Jersey Attorney General Gurbir Grewal celebrating Matthew's graduation from The Arc's employment program for young adults with intellectual and developmental disabilities.



Tyler gets out of his wheelchair and walks again after a traumatic brain injury.

"Tyler could not have accomplished all of this healing without Kessler Foundation's rehabilitation research—without donors like you."

—Liz Brown,
Tyler's mom

With your support, Kessler Foundation researchers can seek ways to help people with traumatic brain injury, like Tyler, regain mobility and independence.

HEALING AFTER TBI

With Your Support, 15-Year-Old Tyler Brown Gets Out of His Wheelchair and Walks on His Own Again—One (Exoskeleton-Assisted) Step at a Time

One day after school, Tyler Brown and his twin brother, Kevin, were walking along a busy street when they were struck by a car. Though Kevin was hit first, his injuries were not as grave as Tyler's. Tyler sustained multiple broken bones, severe internal bleeding, organ damage, and a traumatic brain injury.

"The trauma team wasn't sure Tyler would make it," recalls Liz Brown, the twins' mother. **"If you told me he would walk again, I wouldn't have believed it."** But thanks to donors like you, Tyler experienced the powerful combination of one-on-one physical therapy and the latest robotic exoskeleton technology as part of a Kessler Foundation research study. By walking in the Ekso by Ekso Bionics, Tyler gained strength and improved his balance—**moving from a power wheelchair to a regular wheelchair, then a walker and a cane,**

to walking completely on his own.

"I've always loved robots," explains Tyler, now 15 years old. "I couldn't wait to be strapped into the Ekso." Tyler remembers that walking in the Ekso was scary at first, but after only a few sessions, he felt improvement. "Even though I got tired, I never looked forward to anything as much as I did my Ekso training."

Tyler was so moved and encouraged by the Kessler Foundation research team, led by Karen Nolan, PhD, senior research scientist in the Center for Mobility and Rehabilitation Engineering Research, that **he now dreams of becoming a physical therapist.** "I want to help others like me who have lived through a traumatic injury. I want to do for them what Kessler Foundation did for me," he says.

Liz emphasizes her gratitude. "I will never

underestimate the healing process. Without the specialized therapy Tyler received, he never would have come so far so quickly. Tyler could not have accomplished all of this healing without Kessler Foundation's rehabilitation research—without donors like you." ■



Tyler (right) and his twin brother, Kevin (left), were walking along a busy street when they were struck by a car. Now, thanks to donors like you, Tyler and Kevin can move forward together.

"I want to help others like me who have lived through a traumatic injury. I want to do for them what Kessler Foundation did for me."

— Tyler Brown

A DREAM BECOMES A REALITY, THANKS TO DONORS LIKE YOU

The Opening of the Tim and Caroline Reynolds Center for Spinal Stimulation at Kessler Foundation Renews Hope for Recovery After Spinal Cord Injury, Thanks to Generous Support

On January 24, in West Orange, NJ, a dream became a reality for scientists dedicated to changing the lives of people with spinal cord injury—and for those striving to recover. More than 200 attendees witnessed the ribbon-cutting ceremony for the Tim and Caroline Reynolds Center for Spinal Stimulation at Kessler Foundation. Local media covered the event, which was attended by First Lady Tammy Murphy, U.S. Rep. Mikie Sherrill, State Senator Tom Kean, Jr., Assemblywoman BettyLou DeCrose, Tim and Caroline Reynolds, the Foundation's Board of Trustees, and the leadership and staff of the Foundation and Kessler Institute.

“We see this as a turning point in spinal cord injury research,” says Rodger DeRose, president and CEO of Kessler Foundation. **“The advances achieved at the Reynolds Center will forever alter the world’s perspective of spinal cord injury.”** The Reynolds Center, which is dedicated to restoring function to people with paralysis, is equipped with the latest technologies to determine how gains in function are best achieved

and sustained. Research in spinal stimulation has been underway for more than a year at the Foundation, led by director Gail Forrest, PhD, a leading scientist in the application of electrical stimulation in SCI.

“Donors like you have made this dream a reality,” says Reynolds Center co-director Steven Kirshblum, MD, “for our stellar scientific team and the research participants who work so hard to regain mobility.” The Reynolds Center is named for Tim and Caroline Reynolds, supporters of the Foundation’s spinal cord injury research. “I am proud to be part of the team,” says Reynolds, who was treated at Kessler for a spinal cord injury in 2000. “Through research, we will solve the greatest problem of all time—paralysis.” With your support, you, too, are part of the team changing the lives of people paralyzed by spinal cord injury.

The research team at the Reynolds Center is studying transcutaneous spinal stimulation, which is applied externally, over the area of injury, to improve individuals’ ability to move their arms and legs paralyzed by spinal cord injury. **“The potential for restoring function is evident,”**



Tim and Caroline Reynolds, supporters of Kessler Foundation’s spinal cord injury research, celebrate the opening of the Reynolds Center for Spinal Stimulation.

says Dr. Forrest, describing early results as “quite dramatic.” Next, the team will surgically implant stimulators directly on the spinal cord, a promising technique called epidural stimulation developed at the University of Louisville. Researching both types of stimulation—transcutaneous

and epidural—places the Reynolds Center at the forefront of spinal stimulation research.

Mobility is the major focus, but there is a bigger picture, according to Dr. Forrest, who envisions additional benefits of spinal stimulation. Her team will study the effects of treatment on common complications that impair quality of life after spinal cord injury—loss of trunk function, reduced blood flow to the brain, loss of bowel and bladder function, chronic pain, and low blood pressure.

At the opening event, one research participant, Dr. Peter Hersh, shared his personal perspective on the effects

of transcutaneous stimulation. Each incremental improvement in his ability to use his arms and hands has had an enormous influence on the many small tasks that make up daily life. “Spinal stimulation,” he predicts, “is going to be extraordinarily meaningful for people like me, thanks to donors like you.”

“The Reynolds Center is positioned to have a major impact on the daily lives of people disabled by spinal cord injury,” notes DeRose, “and on the future of people with paralysis caused by other conditions as well. Our generous donors have established the groundwork for success.” ■

Thanks to our generous donors to the Reynolds Center

- | | | | |
|------------------------------------|---------------------------------------|------------------------------------|-------------------------------------|
| Karen and Cliff Aaron | Ellen and John Germain | Mary Rose Migliazza and Carl Guzzo | Mr. Michael and Dr. Marion Saffer |
| Laurence S. Aronson | Dr. and Mrs. A. R. Giaquinto | Carol and Paul Miller | Ellen Salsburg and Ronald Slevin |
| Barry Barber | Mr. and Mrs. David Gibbons | Arthur S. Mindlin | Donald N. Schatz |
| Scott Barber | Robin Greenberg | Barbara and Joe Murray | Lyn Rosensweig and Bruce Schnellwar |
| Martin Barber | Amy and Jeffrey Halper | Carol and Timothy Neil | David and Erin Schonbraun |
| The Carson Family Charitable Trust | Mr. and Mrs. Dean Janeway, Jr. | Noreen and Richard Oelkers | Allan L. Settlow |
| Comperatore Associates, Inc. | Andrea G. Katz, MD | Georgia Page | Henry and Mary Stifel |
| Jane and Joe Concato | Eugene J. Kirkwood | David A. Picon, Esq. | Stephen and Susan Sudovar |
| Elsie Dailey | Sarit Catz and David Legow | Glenn M. and Marilyn B. Reiter | Ronna and Steven Torkel |
| Francine and Michael Davis | Barbara and Gary Lewis | Tim and Caroline Reynolds | Susan and Guy Tufo |
| Lisa and Steven Friedman | Liz and David Lowenstein | Richard and Linda Ritholz | Claire Wactlar |
| Phil Friedman and Jody Solomon | Barry and Leslie Mandelbaum | Steven and Beverly Rubenstein | Lee Wasserman |
| Rebecca Gallanter | Mary Anne McDonald and Joseph Benning | Charitable Foundation Inc. | Bill and Mary Lou Weisser |
| Glen and Joyce Gardner | Deborah Mellen | William Rubenstein | |

YOU MAKE A DIFFERENCE
thank you



Thanks to your support, Dr. Peter Hersh, who lives with spinal cord injury, is among the first to experience transcutaneous spinal stimulation. “Daily life is easier now,” reports Dr. Hersh. “Brushing my teeth, shaving, grabbing things, holding sandwiches, that’s all easier.” He has also seen benefits at work. “Now I can use my left hand to press the shift key on the keyboard. A small gain, but a big impact on my productivity.” The gains affect his family life, too. “I can even play a little piano now with my daughter and play a bit of ping-pong with my son, thanks to this treatment and donors like you.”

