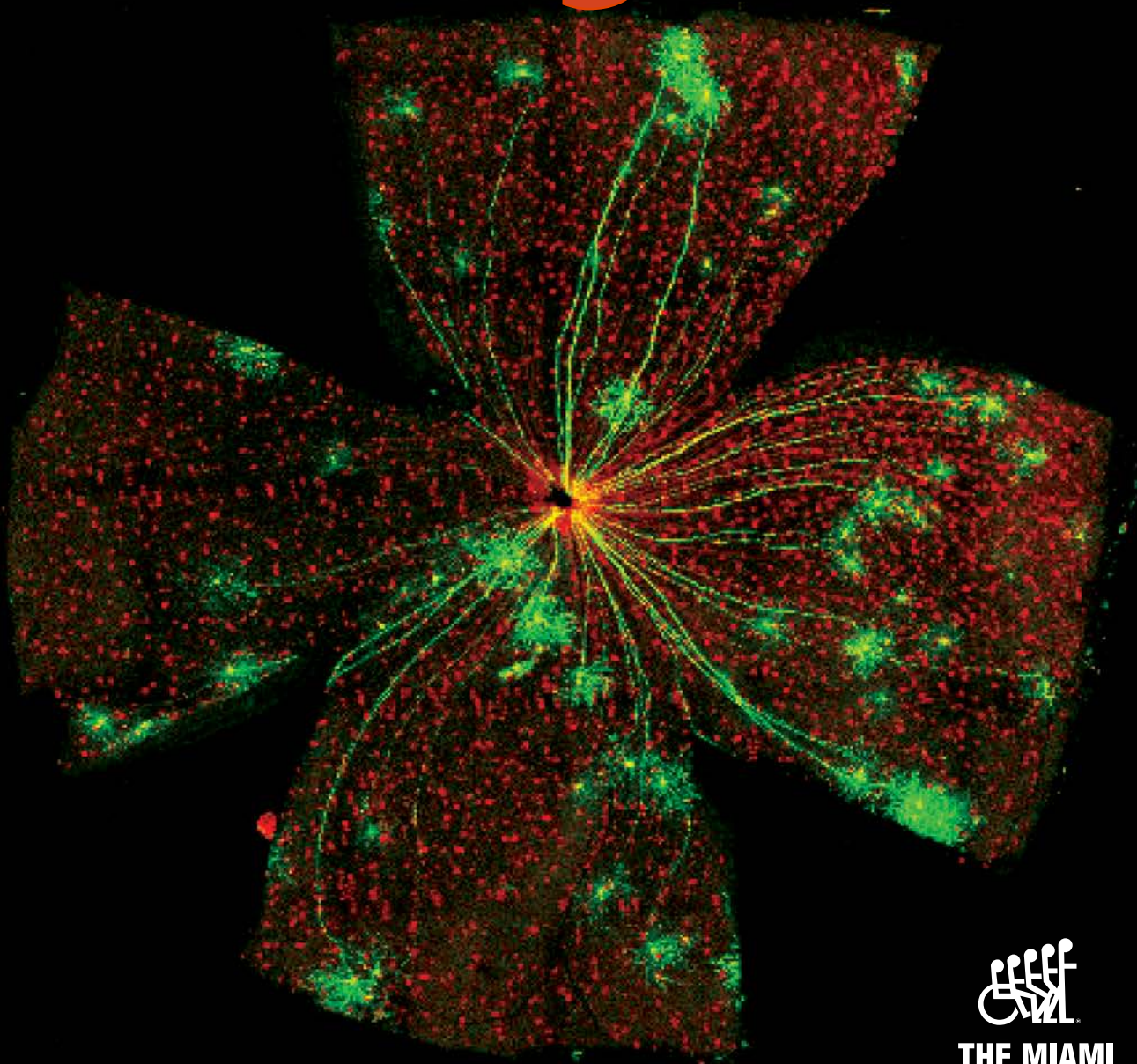


Winter 2021

The Project

A Publication of The Miami Project to Cure Paralysis & The Buoniconti Fund to Cure Paralysis



**THE MIAMI
PROJECT**
TO CURE PARALYSIS

UHealth
UNIVERSITY OF MIAMI HEALTH SYSTEM



This year marks our 36th year for The Miami Project to Cure Paralysis. Despite the many challenges, The Miami Project has thrived with steady research advancements and novel clinical programs, all of which continue to change people’s lives.

Under the leadership of Scientific Director, Dr. Dalton Dietrich and Co-Founder Dr. Barth Green, The Miami Project researchers have made some of the most incredible groundbreaking discoveries. Our basic research programs have been so successful that we have translated multiple research studies into clinical trials that are changing people’s lives now. And yes, paralyzed people are walking again and gaining more function every day. That’s what The Miami Project is about, improving the quality of life of all spinal cord and brain injured people as we search for the cures that will change their diagnosis.

But it’s beyond that also. The Miami Project research has significant implications for many other neurological injuries, diseases and disorders, including Parkinson’s, Alzheimer’s, MS, ALS and other neurodegenerative issues. The Miami Project has changed the lives of so many, and we are just getting started.

“I think my dad would be so proud of everything that we have been able to accomplish. Not a day goes by that I don’t think about the last moments I spent with him. He looked me in the eyes and made me promise never to give up until a cure is found.”

Thanks to the amazing Christine E. Lynn, the doors of the new Christine E. Lynn Rehabilitation Center for The Miami Project to Cure Paralysis at UHealth/Jackson Memorial are now open, and it is one of the of the premier rehabilitation institutions in the world. It is the first center that combines traditional rehabilitation with The Miami Project’s clinical research programs, allowing patients the opportunity to maximize their potential. Every rehab patient now has access to multiple clinical studies and trials all under one roof. Never before has there been a place that offers this level of availability to care and research, from the moment of injury to the moment of discharge and beyond. The best trauma center in the world, the best patient care in the world, in the best rehabilitation center in the world, and The Miami Project is at the center of it all. The entire team is focused on delivering on my dad’s promise that we will find a cure for paralysis.

I remember the day that I lay paralyzed on the football field fighting for my life. I never thought it would lead us to this moment of enormous excitement, because now I believe that cures are just over the horizon. I think my dad would be so proud of everything that we have been able to accomplish. Not a day goes by that I don’t think about the last moments I spent with him. He looked me in the eyes and made me promise never to give up until a cure is found. Let’s continue his legacy. Join hands with me, Dr. Green, Dr. Dietrich and everyone who is part of this amazing journey of discovery. Let’s finish the job and fulfill his promise!

Marc A. Buoniconti

President, The Buoniconti Fund and The Miami Project

Our ultimate vision is to develop successful treatments and therapies that can be administered at different phases of the injury process that complement each other to maximize protective and reparative mechanisms.



Drs. Barth A. Green, W. Dalton Dietrich, and Allan D. Levi

The Miami Project family would like to first thank all our friends, volunteers, and the spinal cord injury (SCI) community for their unwavering support for our multidisciplinary programs as we continue to advance our research initiatives. This year has presented challenges for all of us that had to be overcome to ensure our community’s safety while remaining true to our research and education objectives. We know that COVID-19 has had serious consequences on many of our friends and loved ones. We send our best wishes while looking forward to a future of exciting discoveries, successful translational programs, and meaningful clinical advances.

Over the last year, The Miami Project to Cure Paralysis, a Center of Excellence at the University of Miami Miller School of Medicine, has modified many of our education, outreach, and research clinical programs to ensure their continued success. Our investigators have initiated several remote programs for our SCI community allowing many individuals to stay connected with researchers and colleagues. Successful home programs now include exercise and rehabilitation activities as well as innovative wellness and mindfulness initiatives. These well attended programs have allowed research subjects to participate in new clinical initiatives while adhering to safety guidelines important during these challenging times. With the appreciated vulnerability of our SCI community to infections, new initiatives are safeguarding our research programs and ensuring the safety of volunteers and investigators. Information on these active remote programs and how people can register can be found on The Miami Project website.

An important goal of our research strategic plan is the continued recruitment of outstanding researchers to introduce new questions and technologies that compliment current programs and advance our science. Over the last several months we have successfully recruited new faculty to lead our education and outreach program and to introduce novel neural engineering devices to activate neural circuits to promote function and improve quality of life. We are actively recruiting a new clinical investigator with expertise in SCI neuromodulation that can be combined with ongoing rehabilitation and regenerative approaches including our FDA-regulated cellular therapies. We are excited about these recruits and future contributions leading to important collaborations and innovative programs critical for our future success.

In the area of discovery and translational research, significant advances in drug discovery have been realized including new NIH funding to support an innovative pharmacological approach for promoting successful axonal regeneration after SCI. Another important program being advanced with industry assistance is a humanized antibody treatment that targets neuroinflammation after brain and spinal cord injury. New findings regarding the pathophysiology of brain and SCI are also helping us design better studies to target injury and reparative mechanisms using molecular methods, gene therapies and novel engineering approaches like tissue engineering.

Our ultimate vision is to develop successful treatments and therapies that can be administered at different phases of the injury process that complement each other to maximize protective and reparative mechanisms. Important research programs also continue to target quality of life issues that impact our SCI community, including neuropathic pain, cardiovascular and autonomic dysfunction, muscle spasticity, and fertility. To advance these initiatives, we are strengthening alliances with industry partners to evaluate new minimally invasive electrical and magnetic neuromodulation technologies, including brain-computer interface work to promote upper and lower limb function.

This is an exciting time for The Miami Project as we have now relocated our clinical researchers into the new Christine E. Lynn Rehabilitation Center for The Miami Project to Cure Paralysis. This state-of-the-art facility is already providing endless opportunities for the advancement of new strategies to improve recovery and long-term health for our disability community and caregivers. The Lynn Center is offering the unique opportunity for our clinical investigators to work together with colleagues in Physical Medicine and Rehabilitation, Physical Therapy, and Jackson Memorial Hospital. These new alliances are providing a seamless treatment pipeline from the emergency and intensive care units to rehabilitation programs to improve the long-term health and well-being of our constituents. The new Nick Buoniconti Translational Research initiative is supporting an established clinical infrastructure to ensure the success and continuation of this forward-thinking project. An overreaching goal of The Miami Project is to conduct translational research enabling future clinical advancements for neurological disorders including spinal cord and traumatic brain injury, concussion, stroke and neurodegenerative disorders including Alzheimer’s disease affecting millions of victims worldwide. Our research communities in the Lois Pope LIFE Center and the Christine E. Lynn Rehabilitation Center are working tirelessly to advance new scientific discoveries. We sincerely appreciate your critical support for the development and initiation of multidisciplinary programs to promote recovery and the quality of life of all individuals living with paralysis.

Barth A. Green, M.D., F.A.C.S - Co-Founder

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Allan D. Levi, M.D., Ph.D. F.A.C.S - Clinical Director

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Launching the Christine E. Lynn Rehabilitation Center for The Miami Project

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CHAPTERS

Miami, Indianapolis, Charleston, Naples local chapter events
Darrell Gwynn Quality of Life Chapter of The Buoniconti Fund

MEMORIAM

In Honor of our friends Robin and Brian Cleary



Delivering Interventions at the Earliest Possible Point

BikeSafe co-founder, Dr. Mickey Witte, assists young riders with balancing on a pop-up, low-cost demonstration bike lane created by the program. The wheelchair-accessible parking zone was recreated on the other side of the street during the event.

Prevention and collaboration are at the core of the KiDZ Neuroscience Center, a youth-focused branch of The Miami Project to Cure Paralysis headed by Gillian Z. Hotz, Ph.D. and dedicated to reducing the number of children and adolescents that sustain brain and spinal cord injuries. KiDZ is now a Miami Project staple, launched in 2001 and since establishing and sustaining partnerships with Miami-Dade Public Schools, City of Miami Parks, the Miami Dolphins Foundation, and seemingly countless other community organizations in the South-East Florida region and beyond. In accordance with our ethos and historical precedent, KiDZ has continued to adapt to recent trends and expand in response to circumstance, as well as vision.

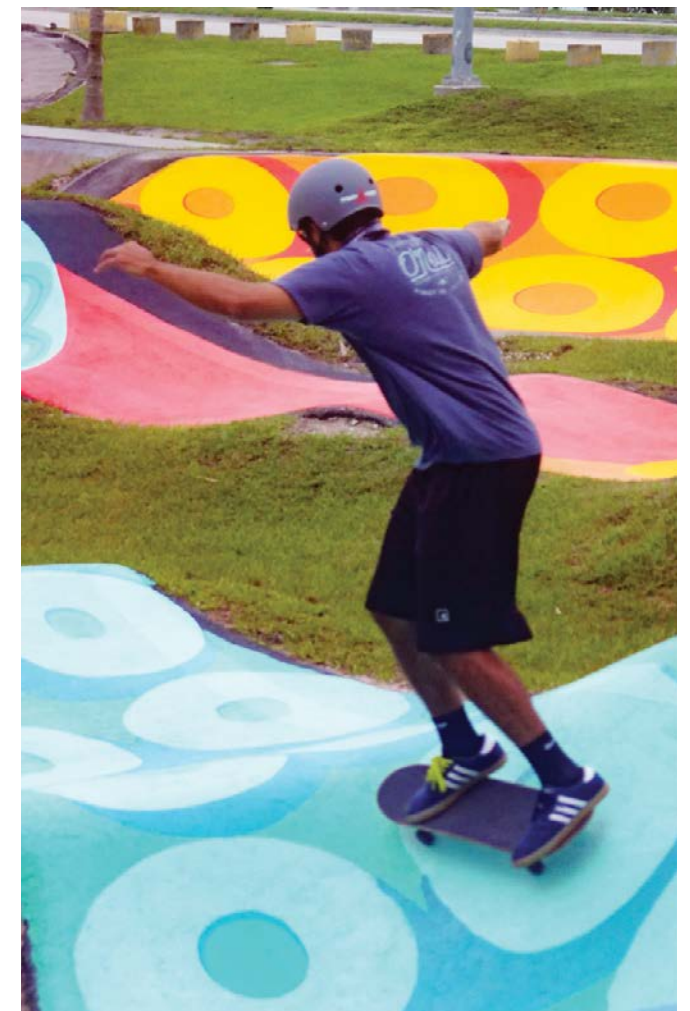
Prevention means intervening when and where it matters most, and the KiDZ Neuroscience Center's WalkSafe and BikeSafe programs have for years been delivering interventions at the earliest possible point. Targeting children—as well as their families and communities—these programs have a rich history of bringing street, crosswalk, bicycle, and helmet education to the youth in their natural environment. Continuing to meet them where they're at, KiDZ has recently added SkateSafe to their list of programming in response to a surge of skateboarding interest likely ushered in by the recent Olympics. The 2020 Tokyo Games were the first to include stakeboarding as an event, with mandatory helmet regulations for the popular under-18 competitors. Not only has KiDZ continued to cater to the community by adapting to the rising demand of skateboarding, but the programming



Skateboard Supercross (SBSX) founder, Jonathan Strauss, with SkateSafe Skateguard Luca Guarella.

is also delivered on site at skateparks. Haulover Beach Park Stake Park and Pump Track, located at 10801 Collins Ave, is a local's-favorite series of undulations and embankments expertly crafted into a flowing asphalt playground by Jonathan Strauss of Skateboard Supercross fame. In a mural to match, local artist Reinaldo ("Rey") Jaffet interwove the winding course with a writhe of octopus tentacles that carry subtle neuroscience messaging and a helmeting call-to-action.

While responding to demand is a staple of participatory research, many KiDZ programs are also proactive. At Haulover, KiDZ has helped outfit the park with a volunteer "skateguard" (a homage to Miami's lifeguards). In the community, they are pushing for safer streets as a more fundamental preventative measure than the street safety that they



A volunteer from SBSX tests the track after painting.

have been educating for so long. "It's no longer just about teaching users to be safe on dangerous roads," says Kurt Kaminer, KiDZ Social Marketing Manager and all-around transportation guru, "it's about realizing how roads can be safely designed for all users." Mr. Kaminer's message deeply summarizes the preventative and collaborative themes that are exemplified in KiDZ and run throughout the whole of The Miami Project. We hope you were able to catch WalkSafe's notorious "Halloween tips" flyer that is seasonally released during that one day when the streets are reclaimed by the people, and cars are simply the guests. Just as the holidays are a use-case evoking community efforts in neurotrauma prevention, so too is KiDZ Neuroscience Program a model for the interdisciplinary and visionary ethos of The Miami Project.



On August 31st, 2021 the University of Miami's robust community of spinal cord injury (SCI) researchers and clinicians received word that they would continue for another five-year funding cycle as an exclusive SCI Model Systems (SCIMS) Center.

The grant, from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR), was awarded to principal investigator (PI) Dr. Elizabeth Felix in the Department of Physical Medicine and Rehabilitation.

The Model Systems is a network of select sites known as Centers. The original overarching "Model SCI Program" was established in 1970, evolving over the years to be called SCIMS and adopt the current role of supporting innovative projects and research in the delivery, demonstration, and evaluation of diverse services for persons with SCI. The program operates primarily by funding SCIMS Center grants, such as Dr. Felix's 2021 award, to the nation's foremost SCI institutions. Funding only comes to sites at the leading edge of medical research and patient care, emphasizing a comprehensive care pipeline beginning at the point of injury and continuing through rehabilitation and re-entry into full community life. Designation is a mark of distinction as each SCIMS Center is held to the highest standards of SCI-specialty research and service provision. Accordingly, in this cycle only fourteen sites made the cut. Miami first became a Center in 1979, and has contributed since with

some gaps. Undoubtedly, the immense potential afforded by the new Christine E. Lynn Rehabilitation Center strengthens this cycle's application allowing us to continue our current streak of Model Systems participation. Along with the distinction, designation come with two main responsibilities. Each Center contributes standardized outcomes to a central SCIMS data repository that feeds the National Spinal Cord Injury Statistical Center (NSCISC). The mandatory requirement for database contribution is one of the reasons for the high standards for Center selection: sites must enter the Model System with their ducks already in a row. But responsibilities also extend to charting new frontiers via participation in site-specific research studies.

The site-specific studies here at our "South Florida" SCIMS Center are headed by PI Dr. Felix, with the ever-experienced Drs. David Gater and Mark Nash serving as "Co-PI" leadership. Support on the research projects will further come from likes of faculty such as Drs. Eva Widerstrom-Noga and David McMillan and postdoctoral fellow Dr. Gary Farkas. Along with the assigned outcomes for the national database, our site will pursue an ambitious project that aims to determine the links between pain, inflammation, and obesity in persons with SCI. The project will track changes in pain, the expertise of Drs. Felix and Widerstrom-Noga, alongside changes in inflammatory biomarkers circulating in the blood. In anticipation of the potential causes of the inflammation, body scans for the fat and muscle content of specific regions—such as the "viscera" (the stomach area) and atrophied legs—under the expertise of Drs. Gater and Farkas. Finally, a population-specific meal challenge, developed for Dr. McMillan's dissertation under the supervision of Dr. Nash, will shed light on whether the inappropriate handling of dietary fats drives the obesity-induced inflammation that might be triggering pain in those with SCI.

Meet the New Miami Project Faculty

David W. McMillan, Ph.D. and Patrick D. Ganzer, Ph.D.



David W. McMillan, Ph.D.

David W. McMillan, Ph.D. has been a Miami Project researcher since 2015, and now elevates his contributions by moving into his role as the new Director of Education and Outreach. Dr. McMillan continues his personal clinical research endeavors on the dietary origins of obesity in persons with spinal cord injury (SCI). He is excited to expend this line of inquiry in concert with the world-leading SCI metabolism experts—Drs. Mark Nash, David Gater, and Gary Farkas in particular—conducting human studies in the new Christine E. Lynn Rehabilitation Center. Dr. McMillan is also deeply committed to uniting The Miami Project with the community, a relationship that will be formalized with an initiative he put forth to construct a "scientific advisory" council comprised of persons with SCI. This council is modeled on his successful community research partnership on a "climate health" project that unites all three University of Miami campuses—Main (Coral Gables), Medical, and Marine (RSMAS)—with community partners to understand hurricane preparedness in South-East Floridians living with SCI. The council is being built in collaboration with the presidents of local SCI Support Group (SCISG) chapters.

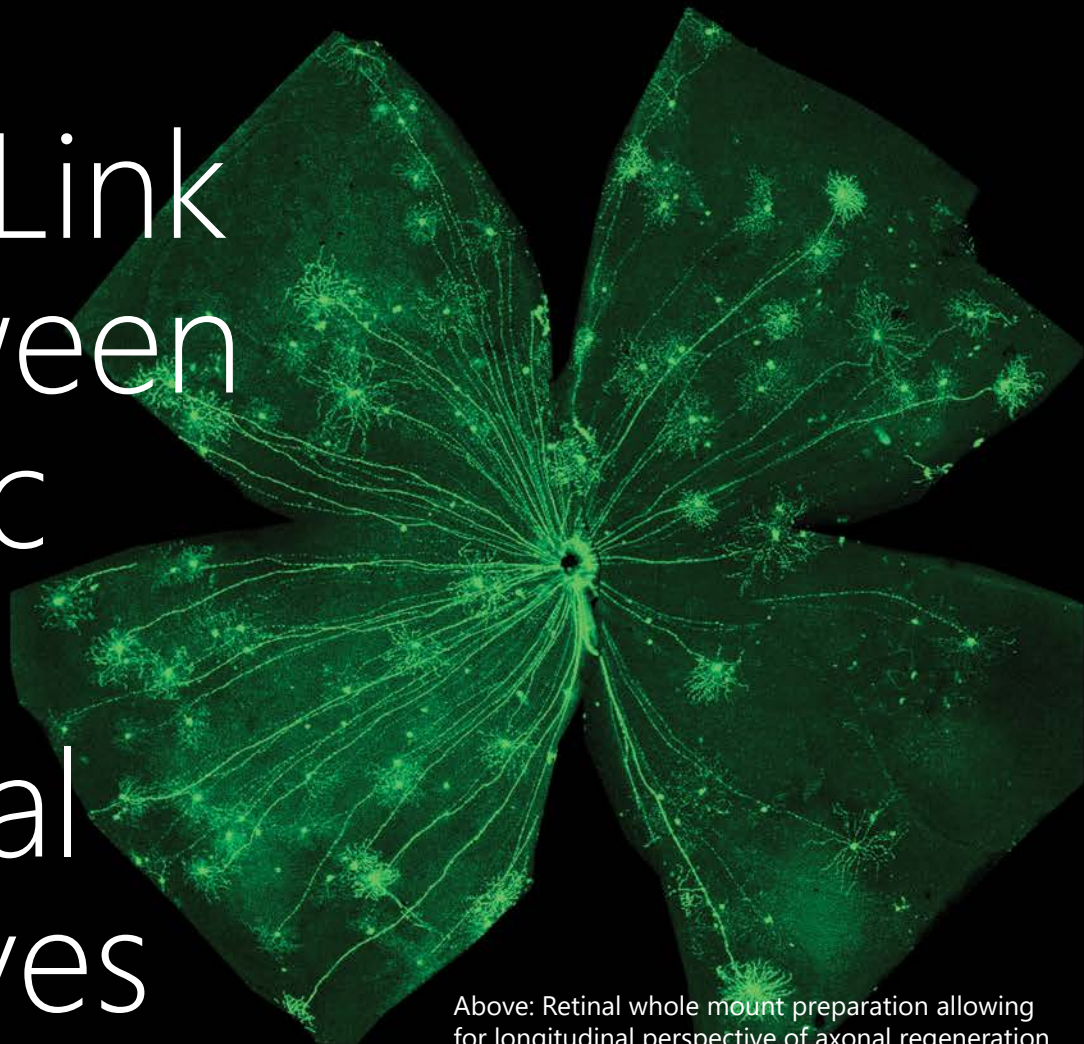


Patrick D. Ganzer, Ph.D.

Patrick D. Ganzer, Ph.D. has joined the team jointly appointed at The Miami Project to Cure Paralysis and University of Miami's Department of Biomedical Engineering. Dr. Ganzer brings his expertise in translational neurotechnologies, coming to us after a 2017-2021 position in the Medical Devices and Neuromodulation division of Battelle where he was the principle investigator (PI) of the Bioelectronic Medicine and Next-Generation Nonsurgical Neurotechnology (N³) programs, the latter funded by the Defense Advanced Research Projects Agency (DARPA). Dr. Ganzer's expertise with hardware and software development, including artificial intelligence applied to machine learning, has exiting applications across the full spectrum of research being conducted at The Miami Project. As such he is already busy collaborating with Miami Project faculty on basic-science and clinical studies while establishing his laboratory.



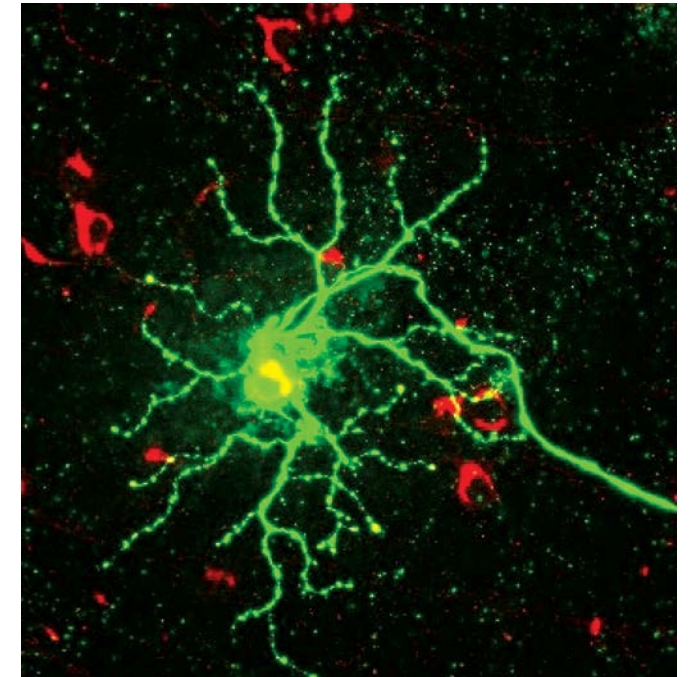
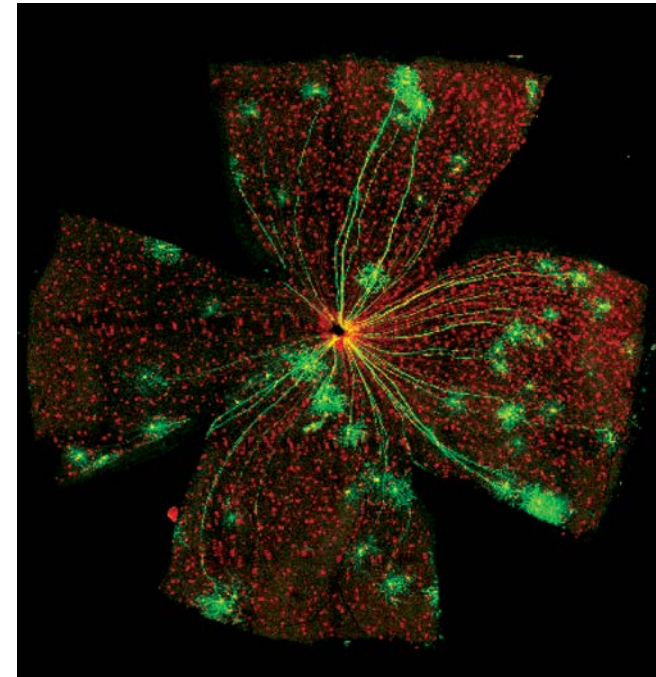
The Link Between Optic and Spinal Nerves



Above: Retinal whole mount preparation allowing for longitudinal perspective of axonal regeneration. Opposite page: Stained images of regenerated primary retinal neurons (green) and supporting cellular environment (red).

Dr. Kevin Park continues to look into different parts of the the central nervous system (CNS) to shed light on how the obstinate signal conducting neurons encased in our skeleton differ from those in the peripheral nervous system (PNS) nerves that project outside of our skulls and spines. Dr. Park's research program aims to learn about CNS regeneration by studying optic nerve ("retinal ganglion cells") injury and regeneration, and his efforts are endorsed by two new National Institute of Health (NIH) grants.

The link between optic and spinal nerves might seem illusive at first, but start by considering the almost inseparable bond between vision and movement. No plants have eyes, and within animals it is a general rule that acuity of vision is proportional to speed of movement—take for instance the Peregrine falcon's >200 mi/hr top speed and legendary vision, or the Mantis shrimp's "world's fastest punch" and immensely complex eyes to match. Furthermore, despite difference in our perceived experience of vision and movement there are certain surprising similarities between the kinds of nerves that originate from within the skull and spine. First, these CNS nerves



are infamously resistant to regeneration, one of the reasons why CNS trauma leading to blindness and paralysis are often, at least for the time being, chronic conditions in adults. Beyond plasticity, these nerves operate best in "small-world networks" characterized by select long-distance connections that enhance efficiency at the risk of having vastly separated the signal from its target should the connection be lost. Furthermore, the similarities between CNS neurons extend beyond the signal conducting cells themselves. All nerves, both CNS and PNS, are embedded in a matrix of support cells known as glia. The glial cells that ensheath—or "myelinate"—optic and spinal nerves are called oligodendrocytes, while those that wrap PNS nerves are called Schwann cells. Fundamental differences between oligodendrocytes, that wrap multiple cell axons, and Schwann cells, that prefer to keep their ensheathing to one nerve at a time, is another shared characteristic between optic and spinal nerves that might make it so that breakthrough regenerative discoveries from one of these cell-types might guide regenerative therapies in many CNS nerves.

It is on this premise Dr. Park's new NIH grants function, with their findings directly applicable to visual disease and injury but also with his optic nerves decidedly acting as a model for studying regeneration of long-distance axonal connections in the CNS

writ large. Dr. Park's first grant, an exploratory grant intended to fund high-risk/high-reward projects in the conceptual phase of development, aims to develop a rodent model of glaucoma whereby optic nerve axons are damaged by elevated intraocular pressure instead of by surgical damage of the nerve. This approach mirrors that of the "contusion vs transection" model of experimentally inducing spinal cord injury in animals, with contusion reflecting the real-world neurotrauma causing CNS paralysis in people. The second, and larger, grant is an ambitious application of a suite of cutting edge technologies to Dr. Park's tried-and-true optic nerve model to identify regeneration-promoting factors that can be the target for novel treatment. This project combines a whole-brain imaging technique and single-cell tracing so that individual, intact optic nerve cells can be visualized in three dimensional space from origin to target. It has previously been shown that certain factors can stimulate optic nerve regeneration, but due to the long-distance projections it has not yet been possible to connect the exact signal generating nerves on one side of the injury to the targets they grow to on the regenerated side. Dr. Park's approach will allow for one-to-one 3D identification of the regenerating optic nerves, and once these nerves are identified they can be studied to determine the type of molecular properties that drive their regenerative behavior.



Pioneering Fertility Researcher from The Miami Project to Cure Paralysis Retires

When most people think of paralysis, they think of not being able to move arms and legs, or not being able to breathe without the aid of a machine. It is commonly overlooked that many other organs and body systems are affected by the disruption of their nerve supply. One area that many do not discuss or consider is fertility, specifically male fertility and the ability of men living with spinal cord injury (SCI) to father children. Thanks to the foresight of The Miami Project's late Scientific Director, Dr. Richard Bunge, and his encouragement of a young researcher named Nancy Brackett, Ph.D., SCI fertility research began entering a renaissance phase as it entered the consciousness of the scientific community.



Dr. Emad Ibrahim, Teodoro "Sonny" Aballa, with Drs. Nancy Brackett and Charles Lynne

To put this problem in better perspective, we must understand that most men, but typically not women, living with SCI, experience infertility because of disruptions to the nerves supplying their reproductive system. In men, these disruptions lead to impairments in erection, ejaculation, and semen quality. When Dr. Brackett started her research, little was known about the effects of SCI on semen quality because methods to retrieve semen from these men were relatively new. Consequently, little data were available. Dr. Brackett's studies established an algorithm for semen retrieval in men with SCI, and this algorithm is still in use today as the best practice policy worldwide.

In the lab, Dr. Brackett's team showed that men with SCI typically have normal sperm count, however sperm motility and sperm viability were abnormally low. When few motile sperm are available, medical intervention is often required to achieve pregnancy. This intervention can be costly and invasive. To remedy this problem, the cause of low sperm motility in men with SCI needed to be understood. Dr. Brackett's research found that sperm motility could be improved if specific toxic substances in the seminal fluid were neutralized. This finding paved the way for a treatment to increase the number of motile sperm in the ejaculate, and thereby reduce the need for expensive medical interventions to achieve pregnancy. Ultimately, this research resulted in a greater number of men with SCI becoming biologic fathers, a dream that many had been told was impossible when they were first injured.

Dr. Brackett and her team are directly credited with helping SCI individuals bring more than 250 babies into the world. This staggering number does not consider the countless others who have taken advantage of the free online information to help guide their steps toward achieving biologic parenthood. Over the years, the fertility team has published hundreds of papers on the topic, sharing their wealth of knowledge with the scientific and SCI community. "When we began the research in the early 1990's little was known about male infertility after SCI. Our 30 years of work answered a lot of questions. It made The Miami Project the go-to place for information



Drs. Charles Lynne and Nancy Brackett hosting a 1995 reunion of families helped by the Miami Project's Fertility Program

on the topic. We did a lot to help men with SCI achieve fatherhood in a way that was optimal for each individual," said Dr. Brackett.

Around the world, at the time and even today, not a lot of clinicians know how to treat these couples, so a big part of Dr. Brackett's mission was to educate professional and lay communities. Some of the work was supported by the Craig Neilsen Foundation. Practitioners from all over the world visited The Miami Project to learn the techniques for treating this unique type of infertility. Through this important program, Dr. Brackett and her team of researchers were able to spread the word. More importantly, they felt it was imperative to "teach the teachers" with the goal of expanding knowledge and understanding about male fertility after SCI.

When asked what she felt her legacy in the field would be, she responded, "I wanted to help a patient population achieve a dream of biological children that may not have been possible otherwise, if not for this work. Initially, I was driven by curiosity. I wanted to understand what was causing this condition and what could improve it. When our scientific findings resulted in outcomes that actually made a difference in people's lives – it was a dream come true for me, as for any researcher. It was always very satisfying to be able to help this special group of patients achieve such an important goal," said Dr. Brackett.

In addition to their published works over the years, one everlasting tool the team produced will continue helping patients for years to come in achieving fatherhood.

The team produced and makes readily available, *Male Fertility Following Spinal Cord Injury: A Guide for Patients*. This guide was originally published in 2000 and has been updated many times since then. This booklet provides information about changes in male sexual function and fertility that may accompany SCI, and outlines the options available to deal with such changes. It is the hope of the fertility team that the information contained in the booklet can be used as a talking point for individuals and their medical professionals.

After more than three decades, Dr. Brackett and her team are considered the world leaders in the field. Now, most men with SCI can expect not only to father children, but to be provided with a treatment plan optimized for their needs. Since its inception, over 700 men have participated in The Miami Project Male Fertility Research Program. The work of this program, now under the direction of Emad Ibrahim, M.D., continues to improve the quality of life for countless men with SCI and their loved ones.

Dr. Brackett has had many colleagues throughout the years that helped make this work possible. Dr. Charles Lynne, Dr. Emad Ibrahim, Teodoro "Sonny" Aballa, the late Maria Amador, and numerous post-docs and residents. "I had a long and rewarding career at The Miami Project," said Dr. Brackett who concluded, "I had the opportunity to study a fascinating medical problem and make a difference in people's lives, all while working at a first rate university with talented colleagues. No one could be happier."



The Miami Project Fertility team with the Lucchesi triplets in 1996



Dr. Vance Lemmon Awarded the Lifetime Achievement Award in Neural Regeneration



Vance Lemmon, Ph.D.

Dr. Lemmon's
body of work
will forever
solidify
his name
in history,
making his
international
recognition
self-evident.

This year, once again, Dr. Vance Lemmon found himself in distinguished company at the 2021 International Neural Regeneration Symposium. For multiple years Dr. Lemmon has attended the conference, organized by the editorial board of the scientific journal Neural Regeneration Research, but this year's virtual meeting was different. During his keynote speech, Dr. Lemmon was awarded the Lifetime Achievement Award in Neural Regeneration, an award with prior recipients including a Nobel Prize laureate and members of the world's leading scientific societies.

Dr. Lemmon's acceptance presentation, a keynote at the conference, mapped his body of work that earned him the prestigious award. In chronicling his career trajectory, Dr. Lemmon explicated his contributions to the development of high throughput phenotypic screening methods for the primary, signal-generating neurons of the central nervous system. These methods of deep characterization are foundational to understanding the adult mammalian central nervous system's general inability to actualize self-repair, thereby identifying candidate targets that might inspire growth in these otherwise stubborn cells. His story begins with his postdoctoral and early (Assistant) professor work where he developed and produced key antibodies that allowed for the study of the role of adhesion molecules in axonal outgrowth, gaining him wide acceptance in the regeneration field. Following this foundational work, Dr. Lemmon made a move to Case Western Reserve University where he would continue to make his "unintended" transformation from electrophysiologist to cellular and molecular neuroscientist. During this transformation, Dr. Lemmon would



Lemmon lab at CWRU in 1991. Team members studied how cell adhesion molecules regulated axon growth and cloned the gene for human L1cam. This led to the discovery that mutations in L1cam cause a terrible birth defect affecting the brain.



University of Miami Team that visited China in 2017 to provide advice about SCI clinical trials. S. Züchner, V. Lemmon, R. Cowan, M. Perez, Y. Shi., A. Lalwani.

"We congratulate Dr. Vance Lemmon on receiving this well-deserved Lifetime Achievement Award for his influential work on the development and testing of new strategies for enhancing axonal regeneration and spinal cord repair." Dr. Dalton Dietrich, Scientific Director, The Miami Project to Cure Paralysis

also work with several Japanese scientists, at the time postdoctoral fellows, establishing his professional link to Asia. Then, in 2003, he made his final fateful move to The Miami Project to Cure Paralysis at the University of Miami where he would manifest the intriguing ("crazy", in his words) merger of his laboratory with that of Dr. John Bixby to create the LemBix lab. Together, and in collaboration with so many others, the LemBix lab has now screened over 440 million compounds and genetic molecules on primary neurons.

Dr. Lemmon's body of work will forever solidify his name in history, making his international recognition self-evident. But the connection to China is less obvious. The Chinese contribution to modern axonal regeneration dates back to at least Kwok-Fai So's fellowship with Albert Aguayo that yielded the "Lengthy regrowth of cut axons..." paper that helped fuel the modern resurgence of spinal cord repair efforts. However, recently there has been a recent uptick in the Chinese emphasis on rehabilitation medicine, and a commensurate increase in the number of clinical trials testing regenerative strategies in persons with spinal cord injury. This emphasis on SCI coincides with Premier Li Keqiang's assumption of office in 2013, and is in accord with the increased prevalence

of neurotrauma in China due to occupational hazards as well as the capacity for human trials afforded by China's population size. In fact, 2013 just so happens to be the first year that Dr. Lemmon participated in the International Neural Regeneration Symposium, a meeting that led to further collaboration, including a 2017 biomaterial validation study that involved multiple multi-week visits to China and a formal institutional data sharing and oversight policy that boosted the rigor of the study analysis. Dr. Lemmon then helped organize a series of workshops for the 2018 Neural Regeneration Symposium, with a crowd favorite practicum on machine learning techniques for biologists. Dr. Lemmon was back by popular demand at the most recent Symposium with a continuation of this machine learning seminar, now virtual, that attracted over 7,000 participants. Surely it is Dr. Lemmon's educational and advisory contributions to the Chinese space of neural regeneration that—along with his body of scientific work—merited his Lifetime Achievement Award. It is a prodigious depth and breadth of academic contribution such as this, across disciplines, generations, and borders, that frame the shoulders of giants upon which others now, and in the future stand to continue our communal advance.



Christine E. Lynn Rehabilitation Center for The Miami Project to Cure Paralysis at UHealth/Jackson Memorial

The Miami Project to Cure Paralysis, a Center of Excellence at the University of Miami Leonard M. Miller School of Medicine, is a generative collective of researchers utilizing all available tools of basic and clinical science to unlock the consequences of spinal cord injury. This collective's operations now span two buildings, the newest being The Christine E. Lynn Rehabilitation Center for The Miami Project to Cure Paralysis at UHealth/Jackson Memorial. Located at 1611 NW 12th Ave in Miami, the facility is now open and is home to The Miami Project's clinical researchers alongside many other entities who serve the mission of understanding, managing, and eventually curing paralysis.

At its inception The Miami Project was an idea that preceded brick and mortar, and the Lois Pope LIFE Center, the research building which opened in 2000 and houses the basic science team, grounded the vision. Now another world-class, purpose-built facility is erected to animate an idea. The Christine E. Lynn Rehabilitation Center for The Miami Project to Cure Paralysis at UHealth/Jackson Memorial, is a comprehensive medical facility that brings together all domains of rehabilitation medicine and research across the full continuum of care, from inpatient to outpatient to community reentry, under one roof. This paradigm lends itself to treating many complex conditions, from neurotrauma such as spinal cord injury and brain injury to cancer, but the building was explicitly designed to enable "cutting-edge clinical research under the unmatched development expertise" of The Miami Project to Cure Paralysis.





Christine E. Lynn

The building's journey began in November 2012 when Mrs. Lynn donated \$25 million to build a rehabilitation center for The Miami Project. In 2013 Miami-Dade voters supported Jackson's Miracle-Building Bond Program that aimed to usher in a new era at Jackson Memorial Hospital, and that cemented the partnership between The Miami Project and University of Miami Miller School of Medicine and Jackson Memorial to build this one-of-a-kind facility. By February 2018 demolition of the existing structures on the site were complete, and construction began. A topping-out ceremony was held on March 15, 2019, ushering in the start of clinical activities in the building before the grand opening that was held Spring of 2022.

The Miami Project's human subject researchers, the faculty, staff, and students who previously occupied the first floor of Lois Pope LIFE Center, were slotted to transition to Lynn Rehabilitation Center where their medical research would continue in dedicated space on the first, second, and third floors of the new building. But everything halted as the first cases of COVID-19 in Florida were

reported on March 1st, 2020, with Governor Ron DeSantis declaring a public health emergency. One month later, on April 1st, 2020 an executive order was issued to restrict all non-essential activities.

Of course, the order restricted only certain activities in the \$175M, nine-story, 270,000 square foot, 72 inpatient bed hospital building. The clinical staff are a mix of Miller School, UHealth, and Jackson rehabilitation professionals with a strong emphasis on neurotrauma, and they still needed to see their patients. One Miami Project clinical faculty member holds leadership positions at Lynn Rehabilitation Center that were integral to these efforts. Dr. David R. Gater, Jr. M.D., Ph.D., M.S. He serves as the building's Chief Medical Officer—along with his roles as the Chair of Department of Physical Medicine and Rehabilitation, Director of the Spinal Cord Injury Medicine Fellowship, and Co-Director of South Florida Spinal Cord Injury Model Systems. Through these leadership roles Dr. Gater orchestrates between and within the many entities in the Lynn Rehabilitation Center and worked tirelessly during lockdown alongside the other essential clinical staff to keep the rehabilitation medicine going. However, research activities were deemed as non-essential and thus shared a different route.



West facing view of the outpatient rehabilitation space on the second floor of the Christine E. Lynn Rehabilitation Center

The initial response from the human subject researchers at The Miami Project, many still in the Lois Pope LIFE Center at that time, was to freeze recruitment. Respiratory complications, alongside cardiovascular disease, was already a leading cause of death in persons with spinal cord injury; and the SARS-CoV-2 virus makes it home in the lungs. The anticipation was palpable on the lead up to the first reports on COVID-19 outcomes in people with spinal cord injury. The first reports coming out of Italy showed disease without an exaggerated death rate, but the numbers were too small to draw any generalizable conclusions. Thus, in an abundance of caution, many of the smaller-scale studies were put on hold and the researcher's efforts went toward digital science communication related to COVID-19 and spinal cord injury. David McMillan, a doctoral candidate at the time, spearheaded efforts with other researchers including Drs. Katie Gant, Mark Nash, Luisa Betancourt, Annie Palermo, student Michael Correa, and Danielle Cilien and Dr. Deena Cilien

to create infographics pertaining to COVID-19 transmission and prevention. These infographics were awarded prizes at the International Spinal Cord Society's 2020 World SCI Day, and now live on various COVID-19 resource webpages. Furthermore, the local Spinal Cord Injury Support Groups were engaged for a three-part virtual "town hall" series, first on COVID-19 and then on COVID-19 vaccination, that yielded the largest audience of any Miami Project and Support Group collaboration.

However, not all studies were halted to the same extent, and certain larger sponsored trials went through radical efforts to allow data collection to continue. One study, using a device developed by BrainQ Technologies Ltd. to deliver an electromagnetic field to argument upper extremity motor function in people with chronic cervical spinal cord injury, transitioned to remote data collection. The proprietary device was placed in the remaining participant's home and the experimental intervention was administered by a trained caregiver with oversight by study members via





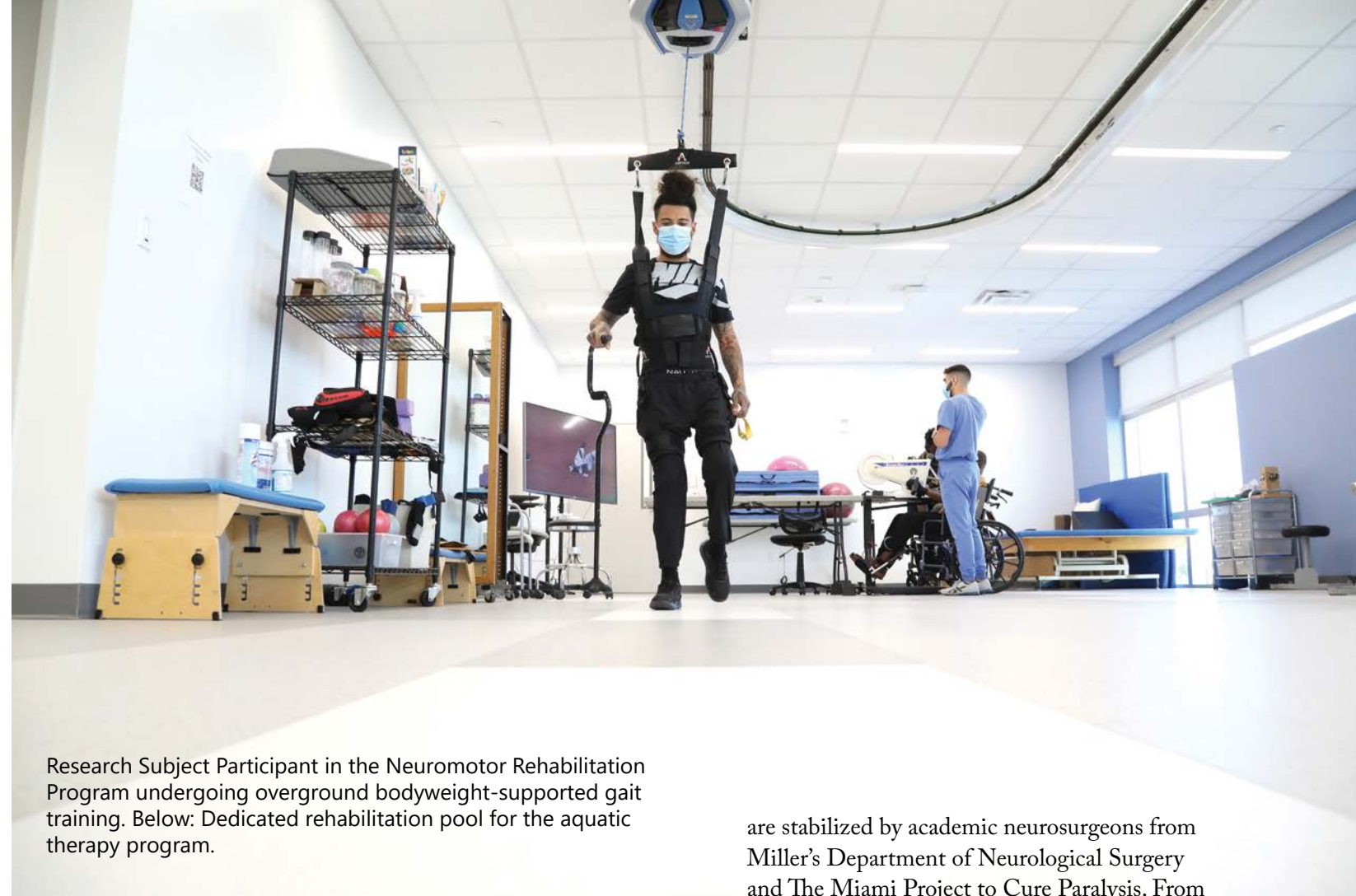
Zoom. Other clever adaptations were implemented by basic science and pre-clinical researchers conducting bench work with cells and animals. Before vaccines were widely available, social distancing protocols greatly restricted the number of people who could occupy the relatively confined bench laboratory spaces, limiting the number of researchers who could be concurrently working on a project. Therefore, labs instigated a staggered work schedule, layering workers across all hours of the day to allow for similar cumulative amount of work to be completed despite the limited rate that could be performed at one time.



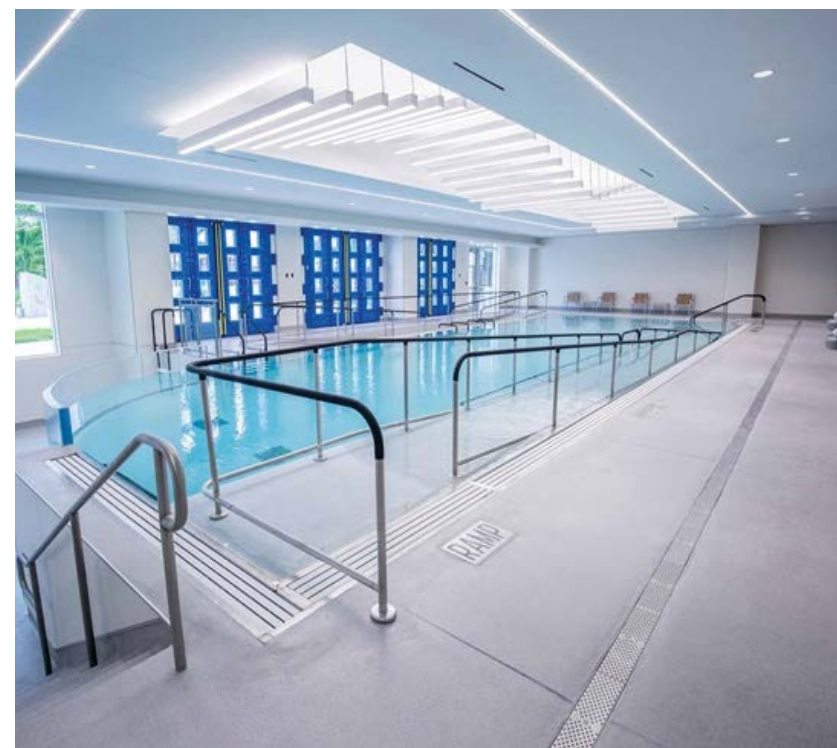
These are just a few examples of adaptability, demonstrations of The Miami Project community's ability to pivot in times of need while also continuing to work toward the mission. Now and in the future, the Lynn Rehabilitation Center will facilitate the realization of this compliance and commitment to the understanding, managing, and eventually curing of paralysis. The vision afforded by this building is one of oneness, a physical structure that facilitates the unified efforts of all entities in the spinal cord injury continuum of care. Jackson's Ryder Trauma Center receiving acute neurotrauma patients that



Top: Researchers test a participant's brain activity during different cognitive tasks. Middle: Upper extremity rehabilitation augmented by electromagnetic stimulation. Bottom: Regulars of the Clinical Lifestyle Program, now located at the Christine E. Lynn Rehabilitation Center.



Research Subject Participant in the Neuromotor Rehabilitation Program undergoing overground bodyweight-supported gait training. Below: Dedicated rehabilitation pool for the aquatic therapy program.



are stabilized by academic neurosurgeons from Miller's Department of Neurological Surgery and The Miami Project to Cure Paralysis. From there, recruited into the South Florida Spinal Cord Injury Model Systems database, directed by Department of Physical Medicine and Rehabilitation and The Miami Project faculty, while beginning acute rehabilitation with Jackson rehabilitation therapists. Transition from acute to outpatient requires only a move from the third to second floor in the Lynn Rehabilitation Center, and discharge from outpatient into community reintegration is facilitated by the robust community of people with spinal cord injury and the professionals that serve them in this region. Christine Lynn and her visionary donation have laid the framework for The Miami Project to realize its full potential. As Marc Buoniconti said recently, "The best trauma center in the world, the best patient care in the world, in the best rehabilitation center in the world, and The Miami Project is at the center of it all. The entire team, focused on delivering on my dad's promise that we will find a cure for paralysis."



2020

2021

&

Virtual

Great

SPORTS

Legends Dinner

to Benefit The Buoniconti Fund

PRESENTED BY TUDOR GROUP

Hank Aaron

Kareem Abdul Jabbar

Andre Agassi

Troy Aikman

Amy Alcott

Buzz Aldrin

Muhammad Ali

Marcus Allen

Ray Allen

Lyle Alzado

Dick Anderson

Mario Andretti

Michael Andretti

Maya Angelou

Eddie Arcaro

Lance Armstrong

Adrienne Arsht

Arthur Ashe

Red Auerbach

Jerry Bailey

The Bantle Family

Charles Barkley

Rick Barry

Carmen Basilio

Bob Beamon

Johnny Bench

Yogi Berra

Simone Biles

Bonnie Blair

George Blumenthal

Wade Boggs

Brian Bortone

Calvin Booth

Julius Boros

Mike Bossy

Ray Bourque

Scotty Bowman

Bill Bradley

Terry Bradshaw

George Brett

Romero Britto

Tom Brokaw

Antron Brown

Jim Brown

Dick Butkus

Jennifer Capriati

Ron Carter

Harry Carson

Gary Carter

Billy Casper

Helio Castroneves

The Chambers Family

Michael Chabon

Kim Clijsters

Phil and Cyndi Lauper

Nadia Comaneci

Erik Compton

Bart Conner

Jimmy Connors

Angel Corrales

Bob Costas

Jim Courier

Bob Costello

Bill Cowher

Walter Cronkite

Larry Csonka

Mark Dalton

Andre Dawson

Pat Day

Scott Dixon

Gil de Ferris

Oscar De La Hoya

Dave Debusscher

Donna DeVaro

Gail Devers

Joe DiMaggio

Mike Ditka

Tom Drexler

Al Dundee

Teresa Edwards

Ernie Els

John Elway

Mike Emrington

Mike Emrington

Julius Erving

Vince Foster

Phil Esposito

Emilio and Gloria Estefan

Janet Evans

Kevin Everett

Chris Evert

Scott Fallick

Nick Faldo

Marshall Faulk

Bob Feller

Mary Joe Fernandez

Ignacio "Nacho" Figueras

Emerson Fittin

Braxton Flier

Ray Floyd

John Force

Whitey Ford

Corey Fry

Walt Frazier

Rowdy Gaines

Chip Ganassi

Tim Lincecum

Don Garlits

Boomer Gersony

Ed Giacalone

Joe Gibbs

Clark Gillies

Paul Gonzales

Evonne Goolagong

Richard "Goose" Gosage

Wesley Guller

Flora Grifone

Scott Hamilton

Mia Hamm

Frank Harris

John Havlicek

Tony Hawk

Calvin Hill

Grant Hill

Larry Holmes

Lester Holt

Evander Holyfield

Gordie Howe

Bobby Hull

Brett Hull

Jim Hunter

Julio Iglesias

Michael Irvin

Clayton Kershaw

Dan Jensen

Brandy Jenner

"Bo" Johnson

Jimmy Johnson

Michael Johnson

Raffer Johnson

Shawn Johnson

C.C. Jones

Ray Jones Jr.

Tommy Lee Jones

Michael Jordan

Jackie Joyner Kersee

Beverly Kearney

Jim Kelly

Nancy Kerrigan

David Kiley

Bernard King

Gillean Jean King

Roger King

Franz Klammer

Olga Korbut

Julie Krone

Mike Krzyewski

Michelle Kwan

Stan Laurel

Pat LaFontaine

Janet Lamotta

Tim Lincecum

Bob Lanier

Tommy Lasorda

Randy Lavoie

Brian Letcher

Mystery Legend

Mario Lemieux

Greg Lemond

Ivan Lendl

Sugar Ray Leonard

Lisa Leslie

Marv Levy

Carl Lewis

Lennox Lewis

Ray Lewis

Tara Lipinski

Nancy Lopez

Greg Louganis

Jerry Lucas

Christine Lynn

John Madden

Phil Mahre

Karl Malone

Ray "Boom Boom" Mancini

Mickey Mantle

Dan Marino

Curtis Martin

Mark Martin

Pedro Martinez

Willie Mays

John McEnroe

Frank McGuire

Rick Mears

Mark Messier

Stan Mikita

Cheryl Miller

Johnny Miller

Earl Monroe

Joe Montana

Archie Moore

Joe Morgan

Edwin Moses

Alonso Mourning

Stan Musial

Joe Namath

Marina Navratilova

Tommy Niedlander

Tim Neely

Craig Neilsen

Wayne Newton

Jack and Barbara Nicklaus

Greg Norman

Ken Norton

Diana Nyad

Dan O'Brien

Shaquille O'Neal

Lorena Ochoa

Al Oerter

Hakeem Olajuwon

Bobby Orr

David Ortiz

Jim Palmer

The 35th and 36th Annual Great Sports Legends Dinners benefitting The Buoniconti Fund were held virtually rather than at their traditional setting in a New York City hotel ballroom. Those in attendance heard stories of perseverance and overcoming seemingly insurmountable odds. The stories were recounted by people living with paralysis and their loved ones, the Sports Legends who were honored, and the musicians who shared their talents with the audience. All agreed that supporting The Buoniconti Fund, the fundraising arm of The Miami Project to Cure Paralysis, and the researchers who were making great strides in the basic science and clinical laboratories, held significant importance. Each dinner raised millions in support of the cutting-edge research underway at The Miami Project, a center unlike any other in the world studying spinal cord injuries.

Hall of Fame broadcaster **Bob Costas** emceed both events with his typical wit and charm, while expressing his wish to reconvene at next year's event in person. The organization's mantra, Stand Up For Those Who Can't, was echoed by all who participated in both evenings. This year's participants included previous Great Sports Legends honorees: Three-time Super Bowl Champion and Super Bowl and League MVP **Jerry Rice**; **Helio Castroneves**, 4-time Indy 500 winner, one of only 4 men to complete the milestone; 6-time Olympic Gold Medal winning swimmer **Amy Van Dyken Rouen**; Olympic Gold Medalist Gymnast and World Champion **Shawn Johnson East**, Basketball Hall of Famer and NBA and Olympic Champion **Alonzo Mourning**.

24

The Project Winter 2021

The Project Winter 2021

25



Gloria Estefan

Through their musical performances, multiple Grammy Award winners **Gloria Estefan**, **Jon Secada**, and up and coming crossover artists **Elysanij**, inspired with their acts and shared words of support and encouragement for The Miami Project and their quest to find cures for paralysis and other neurological disorders and injuries.

In 2020 for the first time ever the 35th Annual Great Sports Legends Dinner was held virtually rather than skip a year. The challenges were many, but legendary sportscaster **Bob Costas** emceed, and this version of the Legends Dinner included previous Great Sports



Bob Costas

Legends honorees: Three-time Major League Baseball Most Valuable Player and World Series Champion **Alex Rodriguez**; the “Golden Bear” **Jack Nicklaus**, 18-time Golf Major Champion and the greatest golfer of all time; Olympic Gold Medal figure skater champion **Tara Lipinski**, Red Sox World Series Champion and MVP **David Ortiz**, National Football League Hall

of Fame safety and nine-time Pro Bowler **Ed Reed**, World Series champion **Mariano Rivera**, the only MLB player to ever be unanimously elected to the Hall of Fame.

In addition to hearing from the Sports Legends on why they continue to support The Miami Project, a particular highpoint of each event was the inspirational and emotional videos that shared the stories of a few of the people living with paralysis, and how The Miami Project and its co-founder Dr. Barth Green have helped



Drs. Barth A. Green and Dalton Dietrich

them through their injuries and recovery. Indeed, through the stories shared by the paralyzed individuals, and Miami Project leadership, it was apparent that the incredible advances that the researchers are making are undeniably having an impact on those living with paralysis.

Marc Buoniconti, the Buoniconti Fund’s President who was paralyzed in a college football game 36 years ago, said, “I remember the day that I lay paralyzed on the football field fighting for my life. I never thought it would lead us to this moment of enormous excitement, because now I believe that cures are just over the horizon. I think my dad would be so proud of everything that we have been able to accomplish. Not a day goes by that I don’t think about the last moments I spent with him. He looked me in the eyes and made me promise never to give up until a cure is found. Let’s continue his legacy. Let’s finish the job and fulfill his promise!”

The past Sports Legend honorees who participated in the evenings shared sincere words for their inclusion in the evening, as well as urging viewers to continue



Jerry Rice

supporting The Buoniconti Fund. **Jerry Rice** said, “I am honored to be asked back for this event. Just because the world has changed in so many ways, the needs of those living with paralysis don’t stop. Those living with paralysis continue to be amongst the most vulnerable to this pandemic, and many other complications in their daily lives. As Nick and Marc have said for years, paralysis can happen to anyone at any time. Paralysis effects so many who are in the prime of their lives, and with your continued support, the researchers and doctors will not only continue their work but accelerate the pace to a cure.”

Helio Castroneves added during his remarks, “What The Miami Project and Buoniconti Fund are doing to help those living with paralysis is truly life changing. Nick and Marc are two guys I have admired since I met them. Their enthusiasm was always contagious, and I couldn’t say no when they called for help. Even though we lost Nick, his spirit lives on in everything we do. Marc and Dr. Green continue the fight, and I am happy to stand beside them as we look to help all our friends in wheelchairs get up and walk again.”



Helio Castroneves

Shawn Johnson East, who was honored in 2013 by The Buoniconti family, said “I remember the excitement and the buzz of the crowd on the red carpet and in the ballroom. It was unlike any event I had gone to before and it quickly became apparent that it was because of the love and determination of Marc and Nick Buoniconti. When tragedy struck, they leaned on



Shawn Johnson East

their athletic background and did what it took to find Dr. Green and save Marc’s life, and then team up with him to create The Miami Project. That is what I find so admirable and why that evening was so special for me.”

Alonzo Mourning said, “Dr. Green and the team at The Miami Project have been doing such great work for so long. They are making real strides in the fight against paralysis and other neurological disorders. They have selflessly dedicated their lives to making a difference for others. But to do it for as long as Dr. Green and his team has, and with such success, that is a testament to the caliber of leadership and support from the community they’ve received for more than 36 years. I am happy to support this cause in whatever way I can.”



Alonzo Mourning



Amy Van Dyken-Rouen said, “As someone who found out first hand that paralysis does not discriminate, I was happy to see so many people come out to support the cause. Getting a chance to be in that room with all the other Legends, and Nick and Marc knowing all they’ve done to try and help others, was quite inspiring.”



Amy Van Dyken-Rouen

Ed Reed said, “I never would have thought, growing up with two paralyzed uncles, that I would be amongst so many people with this injury and to be helping this community. What happened to Marc has changed so



Ed Reed

many lives and I am so grateful to be a part of this community. To cure paralysis you need great people, people who are fighting constantly. I know The Buoniconti Fund is doing just that.”

Alex Rodriguez, who has been a longtime friend of The Buoniconti family and supporter of The Miami Project, said “Nick always told me about how important this project was to him, he never talked about being a hall of famer, or a great linebacker, this project was front and center to his life - it was his vision and his purpose. I love supporting this event and this cause, we are doing it to get one step closer to our goal: to get one step closer to curing paralysis.”



Alex Rodriguez

A Nick Buoniconti super-fan turned friend, Jack Nicklaus spoke to guests about his relationship with the family and how he would attend almost all of Nick’s games when he was in Miami. He said, “I’ve gotten to see, through my friendship with Nick, what an incredible person Marc is - how he has worked so hard, so tirelessly despite his paralysis. Nick wished that one day he could walk the fairway with Marc, and if Nick



Jack Nicklaus

was still with us, he may have gotten to see that dream come true.” Nicklaus capped his heartfelt message, “Marc, you and I will walk that fairway one of these days.”

Entertainment guests **Bon Jovi**, **Gloria Estefan** and The Cast of Broadway’s **Hamilton** each gave vibrant performances. Bon Jovi’s “Living on A Prayer” and other songs were performed from a recording studio, while Gloria Estefan’s “Rhythm is Gonna Get You” resembled a concert with backup singers and stage design harkening back to her days pioneering the

“Miami Sound Machine.” The Cast of Broadway’s **Hamilton** performed an emotional mash-up of Michael Jackson’s “Man in the Mirror” and the Hamilton hit, “It’s Quiet Uptown.”

The evenings were presented by Tudor Group and the Mack Family in 2021 and by Tudor Group, the Mack Family and Badia Spices in 2020. The events were hosted by Buoniconti Fund President **Marc Buoniconti** and The Miami Project co-founder and



Jon Bon Jovi

chairman **Dr. Barth Green**. The dinner serves to benefit The Buoniconti Fund to Cure Paralysis, the fundraising arm of The Miami Project to Cure Paralysis. Since its inception in 1986, the Great Sports Legends Dinner has honored more than 370 Sports Legends and humanitarians and has raised more than \$125 million for The Miami Project’s spinal cord injury research programs. The Miami Project and Buoniconti Fund to Cure Paralysis is committed to finding a cure for paralysis resulting from spinal cord injury and to seeing millions worldwide walk again.



Jon Secada



Elysanij



Dr. Anna Leuker



David “Big Papi” Ortiz

We look forward to seeing you in person October, 24, 2022 at New York Marriott Marquis 1535 Broadway , New York, New York for the 37th Annual Great Sports Legends Dinner.



Jack Nicklaus Hosts 19th Annual Buoniconti Fund Celebrity Golf Invitational Presented By Tudor Group



Jack Nicklaus, the greatest golfer of all time, along with Marc Buoniconti, hosted the 19th Annual Buoniconti Fund Celebrity Golf Invitational at Nicklaus' home club and course, The Bear's Club in Jupiter, Florida on Monday, April 26th.

For the past 19 years, the exciting celebrity golf tournament on the immaculately maintained Bear's Club course, has challenged and mesmerized the participants. The tournament annually brings together some of the world's top business leaders and celebrities as they join forces to find a help cure for paralysis. Since the event's inception, millions of dollars have been raised to help fund the spinal cord injury research programs at The Miami Project to Cure Paralysis at the University of Miami Miller School of Medicine. The Buoniconti Fund offers special thanks to **Mark Dalton** and **Barbara** and **Jack Nicklaus** for their continued generosity toward our cause.

Golfers and celebrities, included NY Yankees pitching great and AL Rookie of the Year **Stan Bahnsen**, Former Dolphins Receiver **Fred Banks**, NY Giants Hall of Fame linebacker **Harry Carson**, Former Bengals Running back **Ki-Jana Carter**, Former MLB catcher with the Indians and Yankees **Rick Cerone**, Former MLB All Star and World Series Champion Pitcher **Scott Erickson**, Former MLB 1st Baseman, 5-time All Star and 2-time



Jack Nicklaus, Marc Buoniconti, Barbara Nicklaus with Marc Dalton



Team Tudor on the green



Mark Dalton with Jack Nicklaus




Marc with Jack Nicklaus and many of Marc's Citadel teammates

Gold glove winner **Andres Galarraga**, NFL Hall of Fame Quarterback, 2-Time NFL Champion and member of the Dolphins Perfect Season **Bob Griese**, Former NY Giants line backing great **Brian Kelley**, Former Dolphins Punter **John Kidd**, Miami Dolphins receiving legend **Nat Moore**, Actor **Aiden Turner** from Single Ladies, NCIS: Los Angeles and Agents of S.H.I.E.L.D., Former NFL tight end with the Miami Dolphins and New England Patriots **Jed Weaver**, Former Bengals Safety and National Champion with the University of Miami **Darryl Williams**.

Special thanks to Tudor Group and The Bear's Club for their continued support of this amazing and worthwhile event throughout the years.





THE BUONICONTI FUND
BENEFITING THE MIAMI PROJECT
TO CURE PARALYSIS

National Volunteer Chapters

Chapters of The Buoniconti Fund were established in 1992 in an effort to enhance the research efforts of the scientists at The Miami Project. Led by volunteer regional director(s), each Chapter is made up of its own volunteer committee members who donate their time and energy into garnering support for their local events. Committee members provide the grass roots efforts in their respective communities by spreading the message of The Miami Project, its ongoing research and its message of hope.



Orlando Chapter golf tournament sponsors and players with Marc Buoniconti



Pittsburgh Chapter golfers with Jimmy Hoy



Indianapolis Chapter enjoying cornhole during the 4th Annual Pub Crawl

The **Orlando Chapter** hosted its **23rd Annual Golf Tournament presented by the AIM High Foundation** on June 4th at the MetroWest Golf Club in Orlando, Florida. Another amazing year full of golf, fun and on-course contests raised more than \$60,000. Get ready for our 24th Annual event in the spring of 2022.

The **Pittsburgh Chapter** held its 17th Annual Golf Tournament on Saturday, September 11th to another sold-out group of golfers. We are so appreciative of all of our sponsors including Jeremie Snyder Electric, Pro Builders Concrete, Tygart Industries and Greene County Slavonic Club. A special shout out to the Throckmorton Family and Mission for Miracles for their special donation to the event in support of The Miami Project. More than \$78,000 was raised at this annual event.

The **Indianapolis Chapter** held two events this year including its **4th Annual Pub Crawl** on July 24th and **4th Annual Trivia Night** on September 25th raising more than \$4,500. The Pub Crawl began at Big Woods Speedway, followed by Daredevil Brewery with a cornhole contest and had last call at Foyt Wine Vault. The Trivia night was held at Speedway Indoor Karting.

Our newest, the **Naples Chapter** located in Florida held its **1st Annual Golf Invitational presented by Gulf Western** on October 29th at the Raptor Bay Golf Club in Estero. Special thanks to all our sponsors including Beacon Building Products, Gulf Western, Benson Mucci & Weiss, Eagle Roofing Products, John R. Wood Properties, Pulte Group, SPEC Materials, STOCK Development and Sunniland Corporation. What an amazing way to start their chapter by raising more than \$95,000!



Gulf Western Roofing foursome at the 1st Annual Golf Invitational presented by Gulf Western

The **Charleston Chapter** held its **13th Annual Tailgate Party** on October 30th at the home of Barnes Family. This year's event was held in honor of Carlos Avalos and his induction into the Citadel Athletics Hall of Fame. Congrats Carlos! Friends and teammates of Marc Buoniconti came from across the country, all to celebrate and raise funds for our amazing research. This year's event raised more than \$39,000! Special thanks to all of our amazing sponsors including Doug and Christy Barnes, John and Martha Barnes, Marc Buoniconti and Cynthia Vijitakula, Reed Campbell of Band Aid Brand & Reed and Lynn Mack.



Citadel friends and teammates with Marc Buoniconti at the 13th Annual Tailgate Party

The **Woody Foundation** held its **10th Annual Golf Classic** on April 29, 2021 at Top Golf with nearly **100** golfers, sponsors and volunteers to support this great day of golf, community and spinal cord injury research awareness. The Woody Foundation has designated The Buoniconti Fund as an event beneficiary and partner for this tournament since 2012, raising more than **\$275,000** to support the research at The Miami Project. The Woody Foundation, Inc. is a 501(c)(3) not for profit organization formed in 2011 to raise funds for the recovery of spinal cord injured persons. James "Woody" Beckham suffered his spinal cord injury making a rugby tackle in January 2011.



Dr. Barth Green, Lucy Foerster, John Fox, Leslie Jones, Dr. Dalton Dietrich with Woody Beckham and Marc Buoniconti





Wheelchair Challenge

Darrell Gwynn had an idea a number of years ago of a great way to get people to better understand the challenges of daily life in a wheelchair and raise awareness and funds for paralysis research. He kept waiting for the best time to put all the pieces together and last year it happened and the Darrell Gwynn Wheelchair Challenge was born and has been off to the races ever since. The first iteration of the challenge was done in September of 2020 to coincide with the 30th anniversary of the ADA, the 30th year since Darrell's paralyzing accident, and because September is Spinal Cord Injury Awareness Month.

The first year was a resounding success, raising nearly \$400,000 for paralysis research, and had a prestigious group of people from the world of sports and business take the challenge. Nearly thirty people took the challenge highlighted by NASCAR personalities **Tony Stewart, Ryan Newman, Denny Hamlin, Kelley Earnhardt** and **Bill Elliot**. On the business and entertainment side we had businessmen **Pete Coors** from Coors Brewing and **Johnny Morris** from Bass Pro Shops, and dozens of others who choose to Stand Up for Those Who Can't.

The 2021 version of the Challenge is well underway and should equal or better the original year's efforts in fundraising and awareness. Once our



Darrell Gwynn delivering a wheelchair to a challenge participant.

participant agrees to join our team and take the Darrell Gwynn Wheelchair Challenge, we have a Challenge specific wheelchair delivered to them. Each participant sits in the chair and spends some time trying to do every day, normal things in their home or office. We ask them to have someone video them doing those things, and then describe how it feels to have this barrier to their daily activities. They are then asked to challenge one of their friends or colleagues to sit in the "Hot Seat" and take the challenge. The idea is to convey how it feels to be unable to perform everyday tasks that many take for granted. Challenges faced by our friends in wheelchairs are enormous and, without a cure, permanent. This has been the reality for Darrell for more than 30 years. It is had been his hope that this



Ray Evernham



Ryan Newman



Marko Dimitrijevic



George Cable



Steve Bryson



Alexis DeJoria



Tony Stewart



Antron Brown



Darrell Gwynn and Joe Coulter

effort will get people to understand much more about the challenges faced by millions like him around the world living life in a wheelchair.

To make this effort successful, we asked each of our participants to share your experience with social and traditional media. You can search the hashtag #DGWheelchairChallenge to see what others have done or look at our social profiles for some examples. They are **Facebook:** @cureparalysis **Instagram:** @TheMiamiProject and **Twitter:** @BuonicontiFund.

Darrell Gwynn





Poker4life™

The Positive Power of Poker!



Julie Ruby with Vincent Pastore with Poker4Life Founders Ethan Ruby and Jeremy Schwartz

Poker4Life 2021 (P4L) was held virtually on Thursday, June 10th, 2021 to benefit The Buoniconti Fund to Cure Paralysis. The 16th edition, despite being online, was a lively and interactive setting as more than 70 players vied for the coveted P4L bracelet and a seat in the World Series of Poker Main event. We want to congratulate all final table players including our 2021 Poker4life.org Charity Poker Champion, Scott Keet, runner up, Stuart Gelwarg and 3rd place winner, Greg Parsons. It was an incredible run by all 3 individuals, and we wish them the very best of luck at the WSOP and respective tournament seats.

The event was well attended online, and we send our heartfelt thanks to the efforts and generosity of our friends from Poker4Life, especially Founders Jeremy Schwartz and Ethan Ruby, and their many supporters and volunteers. The night saw the return of Kevin Graham from Tumbling Dice, our tournament director and the voice of our in-person events since the beginning.

Congrats to the other seven 2021 Final Table Winners: 4th – Rich Silvia, 5th – Raymond Rivera, 6th – Michele Bornstein, 7th – Adam Horowitz, 8th – Micah

Goldberg, 9th – Mike Cintolo, 10th – Ken McKenna. We hope to see everyone next year at the 17th Annual Poker4Life™ Charity Poker Championship!

We would like to extend a special thank you to our Poker4Life 2021 sponsors, Jewelry on 5th, Semper Funds, Gerstman Group and Zugu, who continue to choose to support of our cause.

Each year we continue to be humbled and proud of what we accomplish together. So many have been steady participants year after year. The gratitude we have for the continued support is more than we can put into words. The P4L team has created this environment, and all of our supporters have helped to build the community, and it's our collective contribution that we should be most proud of.

25th Annual Ricky Palermo Spinal Injury Golf Tournament

In 1981, at the age of 21, Ricky Palermo was in an automobile accident that left him paralyzed. Five years later, Ricky contacted The Miami Project and became one of our organization's earliest research participants testing the effects of functional electrical stimulation. According to the Rochester Business Journal, Ricky was inspired by late, great Rochester basketball official Pete Pavia, who raised tens of thousands of dollars for Camp Good Days and Special Times while battling terminal cancer, Palermo and his family started a golf tournament in Batavia in 1997 with modest fundraising expectations.

This year, Ricky and the Foundation supporters held the 25th Annual Ricky Palermo Spinal Injury Golf Tournament on August 4th at Terry Hills Golf Course. More than 200 golfers participated in the tournament and 450 people had dinner that followed. The golf tournament has raised more than \$1.7 million over the past 25 years to help those suffering from the



Ricky Palermo riding in the helicopter for the tournament golf ball drop.

devastation of paralysis. The Miami Project is grateful to the Palermo family and the Batavia community for their support of The Miami Project's research programs.

The 22nd Annual Kevin Kitchnefsky Golf Tournament

In 1996, while on the job for a construction company in New Jersey, Kevin Kitchnefsky was unloading two stacks of chain-link fence from a tractor-trailer when 27 units of chain-link fence, each weighing about 100 pounds, slid off the truck and pinned him against the tractor-trailer, leaving him paralyzed. Determined to improving the lives of those living with a spinal cord injury, Kevin launched his first golf tournament in 2000 to fund paralysis research.

Kevin and The Kitchnefsky Foundation for Spinal Cord Research held its 22nd Annual golf tournament at the Tunkannock Stonehedge golf course. More than 144 golfers and friends attended the event for a day of entertainment and celebration. To date, the Foundation has raised more than \$650,000 to fund spinal cord injury research. An additional \$150,000 has been raised to provide quality of life grants to individuals in Pennsylvania who are living with a spinal cord injury. The Miami Project is grateful to Kevin and his family for being a beneficiary of this tournament.



In Memoriam

Robin Cleary

February 5, 1956 - February 14, 2020

A True Champion for The Miami Project

Assistant horse trainer Robin Cleary, who was paralyzed in a horse training accident at Calder Racecourse in 1996, was nothing short of an angel for The Miami Project to Cure Paralysis. The New Jersey transplant was paralyzed in 1996, but once she recovered enough to rejoin her beloved husband Brian, who predeceased her by two months, training horses, there was no stopping her.

In early 1998, she learned of The Miami Project to Cure Paralysis, and her new purpose came sharply into focus. Since The Miami Project is the world's premier research group working to find a cure for paralysis, and it was based just minutes from the home she shared with her husband, Cleary decided that she needed to do everything she could to help.

In two short years her efforts became so successful that The Miami Project named a special fund in recognition of her efforts, the Robin Cleary Paralysis Research Fund at The Miami Project. One hundred percent



of the money she raised would go directly to spinal cord regeneration research programs, and then to the clinical trials initiative to fast-track promising research to the clinical arena.

Her efforts made a lasting impact in helping to fund the research. Robin and Brian were celebrated in 2008 at Calder Racecourse's Turf Club for raising more than \$1 million for The Miami Project to Cure Paralysis' spinal cord injury research programs. The 1996 injury left Cleary a quadriplegic, unable to move from the neck down, but each day she inspired others to help her change the lives of all living with paralysis.

"What Robin was able to do is simply amazing. I know of no other individual who has led such a grass roots effort to raise money for any charity. She was truly a shining star for our cause and an example of how much one determined individual can do to make a huge difference in the lives of so many," said Marc Buoniconti, Miami Project President.

Right up until they passed away, Robin and Brian trained horses together, and Robin spent much of her time sharing her story of hope and asking others to believe that a cure for paralysis is not only possible, but within reach at The Miami Project. Robin's fundraising always came from the horse racing community. She personally reached out to everyone she could in the industry, including Calder Racecourse and Gulfstream Park, two organizations that were long-time backers of The Miami Project. Trainers and owners at Calder and Gulfstream as well as Hialeah Park, Payson Park and Palm Beach Downs also contributed charitably. Horse farm owners, racetrack executives, horse related associations, sales companies, trainers, owners, jockeys, grooms, exercise riders and hot walkers also gave regularly and generously. And to say that they all responded to Robin's appeal is an understatement.

A few years before Robin passed, she said, "Each year I continue to try and expand my efforts and reach. I am so fortunate that the horse community, full of so many giving people, answered the call these past years. I never thought it possible to raise the kind of money I have when I started. I'm humbled by their generosity and fortunate to have many dedicated and generous donors and friends who have given me the opportunity to help fund this research and be a part of finding a cure."



Brian and Robin Cleary



Robin Cleary with Marc Buoniconti



Brian and Robin Cleary with Gloria Estefan



Marc Buoniconti with Robin and Brian at Calder



Marc and Nick Buoniconti with Robin Cleary



