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Generous donations and volunteer support help us create and sustain our patient-centered epilepsy research programs. As we reach the mid-year mark we are thankful to all of you—our distinguished panel of scientific reviewers and Lay Review Council—as we announce our newest awards to researchers around the world, totaling $1.8 million.

Our 2016 Cycle 1 board-approved grants brings our total to 204 projects funded in 15 countries around the world since our founding. This latest set of grantees represents the best and brightest in the field—from promoting the careers of young investigators, exploring new, highly innovative concepts or untested theories to focusing on scientific advances that have the potential to truly transform the lives of those affected by epilepsy—with prevention and disease modification as critical goals. Building a pipeline and raising awareness about innovative research in epilepsy is equally important, and to ensure that happens, CURE sponsors a University-based invited lectureship program—Frontiers in Research. Epilepsy research is significantly underrepresented in University Seminar Series and Grand Rounds that take place at institutions across the country. Our program provides opportunities for young investigators and clinicians to interact with senior-level, established epilepsy researchers. This year alone, CURE brought eight (8) seminars to universities across the US and UK, with over 500 attendees.

Greater funding for these research efforts is, of course, critical to finding a cure—these efforts cannot be successful without a significant investment. We are grateful to all our supporters across the country; donating, raising funds from others and hosting events like our recent Annual Chicago Benefit May 9. That evening, our CURE family from around the world joined event chair David Storch, Chairman, President and CEO of AAR, for a celebration of hope, innovation and discovery. Thanks to the support of all involved, the goal of raising $2 million to fund our mission was achieved. The evening delicately balanced celebration of all that's been accomplished with the spirit of urgency to keep everyone's focus on the end goal of finding cures. This would not have been possible without the partnership of all involved in the planning of the event and more than 100 volunteers.

As I meet with families throughout the country I’m always impressed with how engaged and eager each is to hear and learn more about promising scientific research and advances; and touched as you share your experiences. With that in mind we designed a new community event, Day of Science, which launched June 18 at the California Academy of Sciences. Day of Science provides a free, educational and networking opportunity for patients, families and all those touched by epilepsy, bringing together prominent medical professionals, researchers and other experts from the local epilepsy community.

CURE Welcomes a New Director of Development!

CURE warmly welcomes its new Director of Development, Freeda Warren, JD, who joined our Organization on June 20. She brings a comprehensive background in fund development and leadership, with more than 15 years of success in fundraising and fundraising management that includes strategic program development, major gifts, annual giving and board member engagement. She most recently was with AARP and AARP Foundation as Senior Development Officer, and in the past she held leadership positions at the American Heart Association, the National Black MBA Association and the University of California, San Diego.
The inaugural event was moderated by CURE’s good friend and leading epilepsy researcher, Daniel Lowenstein, MD, from the University of California, San Francisco, and the program was such a success we’re hosting two more this year at the National Geographic Museum in Washington, DC and Disneyland in Los Angeles. Sincere thanks to California and DC Friends of CURE for making this new program a success.

All of our CURE-funded programs are designed to meet the needs of the epilepsy community—from our research-focused Signature Programs in genetics (Epilepsy Genetics Initiative); Infantile Spasms (IS); Sudden Unexpected Death in Epilepsy (SUDEP); traumatic brain injury (TBI) and post-traumatic epilepsy (PTE) to investigator-initiated grants sponsoring scientific seminars and conferences—all supported through community events and generous individuals, corporations and foundations. We are dedicated to transforming and saving the millions of lives touched by epilepsy, and thank you all for keeping us on mission with your insights, encouragement and partnership and helping us achieve our goal.

Robin Harding
Chief Executive Officer, CURE

“Taking on this new role with CURE is particularly important to me,” says Freeda. “I have a sister who had epilepsy and a young brother who died from epilepsy. I can vividly recall seeing my siblings having what my mother called ‘fits’ (seizures). The stigma surrounding this was silencing; it was our family secret. I’m glad to know that many people and organizations are speaking up and shedding light on the impact of epilepsy on people’s lives. I am honored to be a part of the team raising much-needed funds for epilepsy research and awareness.”

Our annual Mother’s Day campaign, Honor Women Who CURE, celebrates special women in our lives who are unrelenting in their fight for a cure. This year, we invited the community to send Mother’s Day eCards in support of epilepsy research and nominate women in their lives through our digital GuestBook for future Mother’s Day campaigns.

Thank you to all who participated!

Thank you to our Mother’s Day sponsor!

One of our many 2016 Mother’s Day nominations:

“My mom has been and still is by my side. When I was diagnosed with epilepsy at age 9 my life and my family’s life was turned upside down. I can’t imagine a better mom than the one I already have! She is the best!”

Robin Harding
Chief Executive Officer, CURE
Advocacy Corner
CURE Helps Champion Important Research Causes

Innovations Initiative to speed up research progress
The current pace of bringing new treatments and therapies to the market is too slow. CURE signed a letter to US Senators Lamar Alexander (R-TN) and Patty Murray (D-WA), each serving on the Health, Education, Labor and Pensions Committee, thanking them for their continued efforts through the Innovations Initiative, which include advocating for more funding for the National Institutes of Health (NIH). Senators Alexander and Murray’s goal is to find a solution for speeding up the process of bringing medical devices, drugs and treatments from lab discovery to the medicine cabinet. “Today, discoveries supported by NIH often do not come to FDA’s door for six, eight, ten, or even twelve years,” said Alexander in a press release when the initiative was announced last year. “For the millions of people with epilepsy, this pace is unacceptable. Increased federal funding and support would significantly accelerate progress in epilepsy research.”

The fight to improve research access to cannabis continues
Due to its incredible medicinal potential, we continue to believe that more research must be done on marijuana rich in cannabidiol (CBD). In late April, CURE signed a group letter addressed to Chuck Rosenberg, the head of the Drug Enforcement Administration (DEA), urging him to remove cannabis from Schedule I in the Controlled Substances Act (CSA). This would eradicate federal barriers to research, paving the way for more progressive research and new treatments. CURE has also joined with other organizations in support of the Compassionate Access, Research Expansion, and Respect States Act (CARERS, S. 683, H.R. 1538) which would facilitate safe and legal access to medical cannabis for patients and physicians acting in accordance with state law and lift federal barriers to research. The CARERS Act would also remove low-THC cannabis from the CSA allowing individuals in states that have created protections for low-THC therapies to more easily access this potential treatment option.
Current regulatory hurdles make it difficult for researchers to gain access to marijuana rich in CBD. There is no debate that the hoops through which researchers must jump to acquire marijuana, or any chemical found in it, are hindering scientific advancement—and CURE is committed to helping researchers overcome these obstacles to advance research in this important area.

Amendment passes Senate to continue DOD medical research funding

Two provisions in the National Defense Authorization Act threatened to affect important medical research funded by the Department of Defense (DOD). Thanks to the efforts of Senator Dick Durbin (D-IL) and the voices of advocates like CURE through the Research, Not Red Tape initiative, an amendment passed in the Senate in early June to protect this federal funding so it can continue to support breakthrough research for active service members, military families, and veterans. This is especially important as it applies to the new, multidisciplinary, team science initiative CURE is developing in collaboration with the DOD to advance the understanding of epilepsy as a result of traumatic brain injuries, the signature wound of the wars in Iraq and Afghanistan.

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“For the millions of people with epilepsy... increased federal funding and support would significantly accelerate progress in epilepsy research.”

Sen. Lamar Alexander (R-TN)
In Case You Missed It...
Here are some recent news items related to epilepsy that may be of interest to you.

**Acorda Therapeutics, Inc. announced** May 20 it will discontinue development of PLUMIAZ™ (diazepam) Nasal Spray, an investigational therapy which was being studied for the treatment of seizure clusters in people with epilepsy. Data from ongoing clinical trials do not demonstrate its bioequivalence to Diastat® gel, which is needed for New Drug Applications (NDA).
Read more about it at the Acorda website.

**Anne Berg, PhD**, a scientist with the Stanley Manne Children’s Research Institute at Ann and Robert H. Lurie Children’s Hospital, professor of pediatrics and neurology at Northwestern University Feinberg School of Medicine and CURE Infantile Spasms Advisory Council member authored a study on the socialization of children with epilepsy. Findings demonstrate children with epilepsy may exhibit social problems regardless of whether they have seizures or not.
Read the article on ScienceDaily.

**GW Pharmaceutical’s big announcement** in March spoke to a potential breakthrough in access to cannabidiol, the main non-psychoactive ingredient in marijuana also known as "CBD," for children with epilepsy.
Read the article here.

**CURE has again been awarded** the coveted 4-star rating from Charity Navigator, America's largest independent charity evaluator. This honor is earned by maintaining sound fiscal management practices and a commitment to accountability and transparency in our commitment to curing epilepsy.
Read about CURE’s rating.
It could happen to anyone.

Learn more at www.CUREepilepsy.org/anyone
On the Road to Find a CURE
A look back at Tracy Dixon-Salazar, PhD’s recent travels in the epilepsy community

A core principle of CURE’s research strategy is to drive collaboration and accountability among CURE-funded researchers. Grant recipients must report their progress against milestones and second-year funding is contingent upon first-year accomplishments. Our ‘On the Road’ series summarizes our scientific team’s visits to these labs throughout the world, as part of this strategy.

In her recent travels, Tracy Dixon-Salazar, PhD, Associate Research Director, CURE, called on the laboratories of CURE grantees in the US and abroad, and attended American Academy of Neurology’s annual meeting.

ANN ARBOR, MICHIGAN
Dr. Dixon-Salazar’s check-in on the progress of CURE grantees included a visit in January to the laboratories of Jack Parent, MD; Lori Isom, PhD; and Miriam Meisler, PhD at the University of Michigan (UM), Department of Pharmacology.

Drs. Parent, Isom and Meisler are making excellent strides growing their research projects that were initiated with seed funding from CURE. In addition to pioneering the use of stem cells derived from a patient’s skin to study genetic epilepsies, the lab is now trailblazing the study of brain organoids, miniature brain-like organs grown in a dish from a patient’s own cells. By working with induced stem cells and brain organoids, the UM research team is actively looking for therapies for some of the most severe forms of epilepsy that exist.

DUBLIN, IRELAND
Another stop on Dr. Dixon-Salazar’s trip was to Dublin, Ireland in February, where she met up with David Henshall, PhD at the Royal College of Surgeons in Ireland (RCSI). A CURE Challenge Award recipient, Dr. Henshall is a researcher in the Department of Physiology and Medical Physics at RCSI. Dr. Henshall’s work explores new approaches to drug therapy that could potentially revolutionize how epilepsy is treated in the future.

In a CURE-funded research project, the team at RCSI studies autoantibodies working against brain proteins in patients with difficult-to-treat, idiopathic epilepsies. By analyzing autoantibodies that interact with key epilepsy proteins, Dr. Henshall’s team seeks to determine if autoantibodies cause seizures and/or if they interfere with brain functions such as learning and memory.

VANCOUVER, BRITISH COLUMBIA
Amidst a gathering of researchers and clinicians in the epilepsy space, Dr. Dixon-Salazar’s visit in April was to the annual meeting of American Academy of Neurologists (AAN) as a hosted speaker. Her talk centered on CURE’s impact on epilepsy research, specifically, the progress of the Epilepsy Genetics Initiative (EGI) in seeking out new enrollees and creating hope for the future of epilepsy genetics.

Dr. Salazar gives a radio interview with radio host Sean Moncrieff in Ireland
Dr. Dixon-Salazar was able to raise awareness of EGI in the physician community, which will hopefully help spur more genetic testing by doctors of epilepsy patients.
CURE’s 2016 Cycle 1 Grantees

Thanks to the generosity of our donors, CURE awarded $1,800,000 to researchers around the world in our 2016 Cycle 1 grant cycle.

2016 CYCLE 1 INNOVATOR AWARD
($50,000 for one year)

A Antonello Mallamaci, PhD
International School for Advanced Studies, Italy

Scalable transcriptional-translational therapy of epilepsy gene haploinsufficiencies

Loss of one copy of a gene (haploinsufficiency) is a major cause of epilepsy. Individual epilepsy-linked genes are involved in a large variety of processes and the development of effective cures for them is hard—the problems are complex and they require huge economic investments. This project proposes a new approach to restore proper levels and function in cases of haploinsufficiency. If successful, this work will lead to a scientifically and economically affordable, personalized cure for epilepsies due to loss of one copy of a gene. Additionally, this approach can be translated to other neurological disorders caused by gene loss.

B Akiko Nishiyama, MD, PhD
University of Connecticut, Mansfield

Reprogramming NG2 glial cells into inhibitory neurons in an epilepsy model

Epilepsy occurs when brain cells are overactive, and it’s been previously shown that certain brain cells helpful for counteracting that hyperactivity die off in the epileptic brain. Dr. Nishiyama and her team believe they can turn other resident brain cells back into the type of corrective cell that is lost in order to restore the proper balance of activity in the brain, and thus stop the seizures. This has never been attempted before in an epilepsy model, and they believe that this work could lead to a novel therapeutic strategy that corrects the excitation-inhibition imbalance in some forms of epilepsy.

2016 CYCLE 1 TAKING FLIGHT AWARD
($100,000 for one year)

C Rene Barro Soria, PhD
University of Miami, Miami

Molecular mechanisms of epilepsy-causing mutations in the IKM channel: anti-epileptic effect of polyunsaturated fatty acids (PUFAs) variants

Thirty percent of patients suffering from epilepsy do not find relief from available anti-epileptic drugs. Mutations in potassium channels that control activity of brain cells can cause some epilepsies. Specifically, mutations have been identified in brains of patients with epilepsy and it is currently unknown how these mutations lead to the disease. This project aims to identify how the mutations found in patients change the way brain cells behave and thus lead to epilepsy. Treatment strategies will be tested to restore normal channel function, as well. This is the first step toward development of drugs specifically designed to treat epilepsy due to mutations in potassium channels.

D Laura Ewell, PhD
University of California, San Diego

Pediatric epilepsies: microRNAs determine network excitability during development

Pediatric epilepsies can arise when a mistake is made during brain development, the mechanisms for suppressing activity are not in place, and brain cells become overactive. To cure these diseases we need to identify and better understand the master regulators that oversee brain assembly. MicroRNAs (small pieces of RNA) coordinate complex developmental processes. To the applicant’s knowledge, this will be the first study examining the role of microRNAs within the context of pediatric epilepsies. This proposal takes an important first step, which is to determine if microRNAs are good drug targets to restore appropriate brain development. This proposal represents a collaborative effort between the applicant and another junior scientist (Giordano Lippi, PhD), thinking about epilepsy from completely different backgrounds (systems neuroscience and molecular biology).
Stephen F. Traynelis, PhD
Emory University, Atlanta

Functional and clinical evaluation of NMDA receptor mutations in epileptic encephalopathy

This study will serve as a precision medicine model of how to approach epilepsies associated with mutations and provide momentum for efforts on similar epilepsies. Genetic data is increasingly available, and it has revealed an unexpectedly large number of mutations in genes for a particular receptor (NMDA) in pediatric patients with medically intractable epilepsy. The NMDA receptor activates brain cells, and these mutations appear to make the receptor more active, thus resulting in brain hyperactivity. This study aims to look at whether currently existing FDA-approved drugs that block NMDA receptors can be repurposed to reduce seizures and improve symptoms in patients with these mutations.

Mingshan Xue, PhD
Baylor College of Medicine, Houston

Novel models of epileptic encephalopathies

Epileptic encephalopathies are a group of devastating, seizure-ridden pediatric neurological disorders with significant accompanying brain conditions (comorbidities). Many new genetic mutations are being discovered in a growing percentage of these patients. Despite the rapid progress in identifying the genetic causes, the underlying triggers by which these mutations cause epilepsy are not understood. This limited knowledge hinders the development of new therapies. Dr. Xue is developing animal studies of the mutations discovered in human patients to observe how they lead to epilepsy and to test potential therapies. The research and strategy resulting from this project will benefit the large community of investigators interested in pediatric epilepsies, and ultimately all children suffering from epilepsy.

Rup Sainju, MD
University of Iowa, Iowa City

Abnormal ventilatory response to CO2 in epilepsy patients: a potential biomarker for seizure induced respiratory depression & modification by SSRI

Could an antidepressant reduce death from epilepsy? This project is the first to test whether selective serotonin reuptake inhibitor (SSRI) medications, such as Prozac, improve respiratory responses in human patients with drug resistant epilepsy. Evidence in both animal and human research shows seizure-induced severe respiratory depression as one of the possible mechanisms that trigger SUDEP. SSRIs have been shown to prevent sudden unexpected death in epilepsy (SUDEP) in animal studies. This proof-of-concept study could lay the groundwork for a larger, multicenter clinical trial to investigate the use of SSRIs in the prevention of SUDEP.
Epilepsy Genetics Initiative
New Partnership Expands Access to Patient Data

Having recently celebrated the one-year anniversary of the Epilepsy Genetics Initiative (EGI) launch, there are now 275 total participants registered at the time of publication. As enrollment continues to climb, EGI has partnered with Seizure Tracker®, a free, comprehensive tool that allows patients and physicians to track seizure activity and understand its relationship with epilepsy-related treatments.

The patient’s care team can create Seizure Tracker reports to combine the patient’s account with their genetic profile. Any genetic findings from EGI and seizure outcome data will be provided to the patient’s care team and allow for more informed treatment decisions. Researchers will use this combined data to help advance precision medicine focused on personalized treatments for the individual patient.

“This will inevitably improve research down the road,” said Tracy Dixon-Salazar, PhD, Program Director for CURE’s EGI program.

EGI is always open for enrollment. Anyone who has epilepsy and who has had required genetic testing completed should be encouraged to enroll. To ask questions or learn more information, visit www.CUREepilepsy.org/egi or call 844.EGI.CURE.
CURE’s Team Approach Provides Win-Win Experiences

When CURE’s Infantile Spasms (IS) Initiative launched in 2013, it was a first-of-its-kind multidisciplinary team science initiative, bringing together eight teams of investigators to collaborate across the country. Scientists are usually wary of sharing unpublished data, which means results of a study typically are not announced until they are public. Only then would a potential partnership form between two researchers. However, the interactive, protected environment provided by the IS Initiative allows collaboration to begin right away—which was the case for Chris Dulla, PhD, of Tufts University and Jeff Noebels, MD, PhD, of Baylor College of Medicine.

“From the very first meeting Chris’s project really appealed to me, and we were able to connect and share details during the first IS meeting,” said Dr. Noebels.

Dr. Dulla’s research goal is to investigate new mechanisms of IS and determine if the molecule beta-catenin plays a role in IS through a new mouse model. Dr. Noebels’ lab also uses a mouse model of one form of human IS to look for molecular cures during early brain development. The two have since collaborated on mouse models, sharing brain tissue and techniques. “We’re now able to capitalize on each other’s resources and expertise,” said Dr. Noebels.

“I think this CURE-style approach to this project helped create this desire in all of us to see the project succeed,” said Dr. Dulla. “CURE helped create that desire that made us look harder for new opportunities and made us strive to live up to their expectations.”

CURE has awarded IS investigators over $4.1 million to advance cutting-edge research.

Enduring collaborations, like those of Drs. Dulla and Noebels, are an example of important successful outcomes that come from the team science approach, which helped pave the way for CURE’s newest research initiative in collaboration with the US Department of Defense—Team Approach to the Prevention and Treatment of Post-Traumatic Epilepsy (TAPTE).
Think Tank Meeting Launches CURE-DOD Strategy Around Important PTE Project

Key thought leaders strategize how to create the greatest impact for the $10M US Department of Defense grant to CURE*

To map out the opportunities for applying funds devoted to post-traumatic epilepsy (PTE) and traumatic brain injury (TBI) with the greatest impact over the next five years, key thought leaders in epilepsy, TBI and veterans’ health gathered in Chicago for a think tank meeting on February 17. CURE’s newest research project is called Team Approach to the Prevention and Treatment of Post-Traumatic Epilepsy (TAPTE), and is supported by a $10,000,000 grant awarded by the US Department of Defense.

CURE’s ultimate goal is to establish a multi-center, multi-investigator collaborative team that will translate patient-relevant findings at the molecular, cellular and systems level into novel therapies to prevent the development of PTE as a result of TBI. By utilizing a multidisciplinary, team science approach, the project aims to build a body of knowledge that primes the community for more effective target identification and prevention strategies.

Next steps for the project
The Request-For-Applications was recently released, signaling the beginning of the application cycle and peer review process. Once investigators are selected, a face-to-face meeting of the investigative team will take place and budgets will be revised for approval by CURE’s scientific team. After that process has concluded, the next step will include issuing a limited number of awards to fuel the first scientific studies that are considered highest priority. The progress of the TAPTE project will be monitored and evaluated on a regular basis, and funds will be awarded in the future based on development of additional milestones, as driven by scientific progress.

*This targeted program was created in collaboration with the Department of Defense, Psychological Health and Traumatic Brain Injury Research Program, under award number W81XWH-15-2-0069.

DOD THINK TANK PARTICIPANTS:

- Ramon Diaz-Arrastia, MD, PhD<br>Presidential Professor of Neurology, University of Pennsylvania, Perelman School of Medicine
- David Ripley, MD<br>Medical Director, Brain Injury Medicine and Rehabilitation Program, Rehabilitation Institute of Chicago (RIC)
- James McNamara, MD<br>Professor of Neuroscience, Duke University School of Medicine
- Julie Milder, PhD<br>Associate Research Director, CURE
- Army Capt. Patrick Horan<br>Patricia Horan
- Ivan Soltesz, PhD<br>James R. Gilly Professor of Neurosurgery and Neurosciences, Stanford School of Medicine
- Steve White, PhD<br>Research Advisor, CURE
- Nancy Temkin, PhD<br>Professor of Neurological Surgery and Biostatistics, University of Washington
- Robin Harding<br>Chief Executive Officer, CURE
- USMC Lance Cpl. Scott Kruchten
- Frank Tortella, PhD<br>Retired Neuropharmacologist and Brain Trauma Neurobiologist, Walter Reed Army Institute of Research
- Susan Axelrod<br>Founding Chair, CURE
- Kevin Wang, PhD<br>Executive Director, Center for Neuroproteomics and Biomarkers Research, University of Florida
- Sharon O’Keefe<br>Board Chair, CURE
- President, The University of Chicago Medicine
- Vicky Whittemore, PhD<br>Program Director, Epilepsy, NINDS

Learn more about the grant CURE received from the US Department of Defense and the aims of the TAPTE project at the CURE website.
SUDEP Action Tank Meeting
Creating a strategic research plan to end Sudden Unexpected Death in Epilepsy

CURE, in partnership with the Band Foundation, hosted a special panel of preeminent thought leaders, practitioners and experts at the CURE SUDEP Action Tank meeting in April. The meeting kicked off with a review of CURE’s paradigm-shifting SUDEP portfolio, and then honed in on identifying key opportunities and gaps in research that can drive science further within the SUDEP space.

Many innovative thoughts and ideas resulted from the meeting, but two areas of focus were discussed extensively:

1. Wearable seizure detection devices with data collection capabilities
2. Understanding the linkage between sleep and epilepsy

There is a critical need and strong desire to advance rigorous scientific research in wearables that track seizures and the interplay between sleep and epilepsy—and in response to the SUDEP Action Tank conversation—CURE is conducting more research around the potential of advancing device and sleep research.

Learn more about SUDEP and CURE’s commitment to SUDEP research at the CURE website.
CURE Brings the Power of Science to the Community!
Inaugural Day of Science presented by CURE erases stigma and brings people together

Whether you are a parent, loved one or patient, there are too many questions about epilepsy without answers. That’s why CURE is encouraging relationships between patients and researchers through a new program, Day of Science, creating an empowered community and ensuring no one feels alone on this journey.

“CURE created a safe place for all of us touched by epilepsy. It felt so welcoming to be surrounded by other parents going through the same journey,” said Princess Costello, a founding member of California Friends of CURE and mother of Dominic, her young son with epilepsy. “We’ve been on this journey for nine years. It’s empowering to be connected to world-renowned doctors, especially ones that I was able to speak with personally.”

Currently in its inaugural year, Day of Science is a free, educational and networking opportunity for patients, families and all those touched by epilepsy. The first event was held in San Francisco on June 18, with close to 100 excited attendees gathering at the ultramodern California Academy of Sciences. Adults networked and listened in on talks by prominent experts while youth participated in activities and interactive exhibits at the museum.

“We were so happy that Dominic and his sister were able to have their own adventure with other kids just like him,” said Manford Costello, Princess’s husband. “Dominic is nonverbal, but I could easily see his joy when the Junior Explorers returned.”

Dan Lowenstein, MD, Professor and Vice Chairman in the Department of Neurology at the University of California, San Francisco, moderated the day’s educational discussions entitled, “The Future of Epilepsy.” A panel of experts from leading institutions discussed the state and future of epilepsy research and then joined attendees for a lunch-and-learn, giving them the unique opportunity to have a one-on-one conversation.

“The conversation was lively, insightful and poignant,” said Dr. Lowenstein. “It reminded all of us that, although there has been much progress, continued support for research is the key to finding the cure.”
To learn more about CURE’s Community Engagement programs, visit the CURE website.

The next Day of Science event takes place in Washington, D.C. at the National Geographic Museum on September 17.

CURE is very excited to also be hosting a Day of Science at Disneyland in Anaheim, California for Epilepsy Awareness Day (EADDL) on November 2.

Stay tuned for more details on future Day of Science dates or contact us to bring it to your own community at DOS@CUREepilepsy.org!

Thank you to the Day of Science sponsors!
Epilepsy Research takes Center Stage at Key Universities

Epilepsy research is significantly underrepresented in University Seminar Series and Grand Rounds taking place at institutions of higher learning, and this lack of exposure can keep the best and brightest minds from considering the field. CURE’s Frontiers in Research Seminar Series program, a University-based invited lectureship program, gives young researchers and clinicians a front row seat to the world of epilepsy research and provides opportunities for young investigators to interact with a senior-level epilepsy researcher.

2016 has been busy, with eight seminars taking place across the globe!

**Chicago, Illinois:** Northwestern University Feinberg School of Medicine
Speaker: Heather Mefford, MD, PhD, University of Washington
Hosts: Alfred L. George, Jr., MD & Stephan Schuele, MD
Dr. Mefford provided an overview of recent advances in gene discovery, with an emphasis on the encephalopathies—the most severe of the epilepsy syndromes.

**London, England:** University College London (UCL) School of Pharmacy
Speaker: John Huguenard, PhD, Stanford University
Host: Mala M. Shah, PhD
Our understanding of the neural networks involved in seizure genesis has greatly expanded in recent decades. This, coupled with advances in targeted control, is leading to sudden improvement of epilepsy treatment in animals. Professor Huguenard presented on work in two different models.

**Farmington, Connecticut:** University of Connecticut Health Center
Speaker: Jack Parent, MD, University of Michigan
Host: Eric Levine, PhD
Dr. Parent discussed his team's work with an approach that could offer great promise for modeling childhood epileptic encephalopathies and provide a useful platform to identify novel therapies.

**Waco, Texas:** Baylor University
Speaker: Amy Brooks-Kayal, MD, University of Colorado, Denver
Host: Joaquin Lugo, PhD
Dr. Brooks-Kayal discussed potential new targets that can show promise for the disease modification, prevention and cure for the acquired epilepsies.
Portland, Oregon: Vollum Institute, Oregon Health and Science University  
Speaker: Jeff Noebels, MD, PhD, Baylor College of Medicine  
Host: Gary L. Westbrook, MD  
Dr. Noebels presented on a novel gene mechanism potentially common to both sudden death in epilepsy and migraines with aura.

Burlington, Vermont: University of Vermont Medical Center  
Speaker: Scott Baraban, PhD, University of California, San Francisco  
Hosts: Gregory L. Holmes, MD & Rodney Scott, MD, PhD  
Zebrafish have emerged as a promising and valuable model organism for research. Dr. Baraban highlighted the past and present techniques which have made, and continue to make, zebrafish an attractive model organism for drug discovery in epilepsy.

Madison, Wisconsin: University of Wisconsin-Madison  
Speaker: Paul Buckmaster, DVM, PhD, Stanford University  
Host: Matt Jones, PhD  
What causes temporal lobe epilepsy? Dr. Buckmaster presented recent anatomical and electrophysiological results from animal models.

Stanford, California: Stanford University  
Speaker: Eleanora Aronica, MD, PhD, University of Amsterdam  
Host: John Huguenard, PhD  
The role of inflammation in the pathophysiology of human epilepsy has received increasing attention in recent years. Dr. Aronica discussed clinical observations and experimental findings, highlighting specific inflammatory pathways that could represent potential targets for antiepileptic, disease-modifying therapeutic strategies.

COMING SOON!  
Thimphu, Bhutan: Bhutan Society of Epilepsy and Neurology  
When: Monday, July 25, 2016  
Speaker: Dr. Manjari Tripathi, All India Institute of Medical Sciences  
Host: Dr. Devender Bhalla

Halifax, Nova Scotia: Dalhousie University  
When: Wednesday, September 21, 2016  
Speaker: Helen Scharfman, PhD, NYU School of Medicine  
Host: Bernd Pohlmann-Eden, MD, PhD

If you have any questions about the Frontiers in Research Seminar Series, please contact Liz Higgins at liz@CUREepilepsy.org

Click here for more info
2016 Annual Chicago Benefit
Together we made a difference.

The CURE family came together at The Field Museum in Chicago on May 9 to raise $2 million for our biggest annual event to support epilepsy research. All who attended heard powerful stories from those that have been touched by epilepsy along with musings and reflections from comedian and writer Jon Stewart.

With the largest room of attendees ever, the evening began with remarks from CURE leadership, as well as 2016 Event Chair David Storch, CEO, AAR. “Although I do not have a personal connection to epilepsy, CURE’s impact in accelerating scientific discoveries that will truly impact the well-being of so many patients has always inspired me,” said Storch. Founding Chair Susan Axelrod and Sharon O’Keefe, Chair of CURE’s Board of Directors and President of the University of Chicago Medical Center, spoke about their own inspirations—their daughters, Lauren and Mackenzie, who both live with epilepsy. Sharon recounted her first interaction with the organization before becoming Board Chair, and shared her goal for taking on the position. “I hope we will be able to raise awareness of the impact of epilepsy, raise resources to fuel innovative research, advance scientific understanding of the underlying causes, and move closer to a cure,” said O’Keefe.

Chief Executive Officer Robin Harding addressed the audience, recapping CURE’s continuing progress and impact on epilepsy research, calling on attendees to help support the future discoveries that are so critically needed. David Axelrod shared inspiring words on the work the organization has done to drive the development of a multidisciplinary team-science approach to researching post-traumatic epilepsy (PTE) as a result of traumatic brain injury (TBI). Storch added his support of this initiative earlier in the evening and his motivation for chairing the event. “The company I lead, AAR, provides aviation services to the government. We support the men and women in the military, on and off the battlefield, so this type of research is incredibly meaningful to all of our employees and customers,” said Storch.

One of the memorable portions of the evening was the introduction of a video about CURE and PTE featuring retired military members, USMC Lance Cpl. Scott Kruchten and Army Capt. Patrick Horan, who was in the audience along with his supportive wife Patty and service dog, Wilson. The impactful video is a powerful testament to how important research into treating TBI and resulting PTE is for those who have experienced head trauma. Both Kruchten and Horan have suffered seizures and other seizure-related challenges after experiencing traumatic brain injuries while serving in the Iraq and Afghanistan wars.

CURE’s program will rapidly translate patient-centered findings into new therapies which could help reveal additional consequences of TBI other than epilepsy. Our role in leading new ways of thinking about epilepsy research was a focal point of the evening, as was the organization’s commitment to finding new treatments for people with genetic and acquired epilepsies.
To all who joined us this year—and our Event Chair, David Storch, CEO, AAR, Vice Chairs, Host Committee, Volunteers and generous Sponsors—thank you! We made a difference together, and we could not have done it without you. Your continued support is critical to our mission to cure epilepsy, transforming and saving millions of lives.

$2 million was raised to impact new scientific opportunities and future breakthroughs!

Jon Stewart delivers trademark satire

Comedian and writer Jon Stewart was the special guest at the 2016 Annual Chicago Benefit, delivering his well-known brand of satire. It was a treat for longtime Stewart fans of the CURE community to see him live for a good cause.

See photos and video from the Annual Chicago Benefit at the CURE website.

Thank you to our Presenting Sponsors!

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CURE Crew Events

Join us at one of our many CURE Crew events across the nation.

UPCOMING CURE CREW EVENTS
It’s not too late to be a part of an event! We have some fun events coming this summer.

- **Mags’ Bags Tournament**
  - **Highwood, IL** | Saturday, July 30
  - Run by Hannah Jorjorian, Chris Clark, Melissa Loesch and Tim Loesch of RE: Epilepsy, Mags’ Bags is a two-person team bags tournament with prizes for the winners. Over the past three years they have raised over $71,000 for CURE in support of epilepsy research.

- **RE: Epilepsy 2016 – Silent and Live Auction**
  - **Highwood, IL** | Saturday, September 10
  - MSL, Inc. is at it again, this time with a live and silent auction, raffles, music and delicious food at Toad Stool Pub. There is also an opportunity to purchase squares to win a TV. Follow RE: Epilepsy on social media for more information! This event is in honor of Maggie Loesch who lives with epilepsy. In its fourth year, MSL Inc. is hoping to move their collective total raised for CURE to $100,000 through RE: Epilepsy events.

- **Croquet for a CURE**
  - **Quincy, MA** | Saturday, September 24
  - PEARs is hosting their 3rd annual Croquet for a CURE tournament to benefit epilepsy research. Grab a friend or three and make a team. There will be prizes this year for best team name/theme and best "outfits," so get creative! There will also be major auction items, like a beautiful built-in outdoor fireplace, a signed Brady football, a Gronkowski jersey, and many fantastic gift baskets!

PAST CURE CREW EVENTS
Thank you to all who participated in CURE Crew events in 2016 so far! Together you’ve helped raise $100,000 for epilepsy research!

- **#TeamAbby - Online**
- **Cupid Chase - Senoia, GA**
- **Seize the Day virtual run - Remote**
- **24-Hour Stream for a CURE - Online**
- **4th Annual 5k Strides for Epilepsy - Salisbury, MD**
- **5th Annual Silent Auction for CURE - Ames, IA**
- **Concert for CURE - Florence, KY**
- **Purple Rain - Waukegan, IL**
- **Purplize! Walk - Florida**
- **First Annual Sprint for Spirit - Deerfield, IL**
- **Ella’s Race for a CURE - Western Springs, IL**
- **Jackie Clark’s Endurance Race - California**

Thank you to our CURE Crew sponsor!

Interested in learning how to become a CURE Crew host or volunteer?
- 312-255-1801
- jill@CUREepilepsy.org
- www.CUREepilepsy.org
Crowdfunding Comes to CURE!

CURE Crew is part of the heart and soul of our organization, with volunteers dedicating their time and energy to furthering CURE’s mission. Now it is even easier to host a CURE Crew event of your own, thanks to our new crowdfunding platform, Teamraiser.

With Teamraiser, you can easily track your progress, send emails directly to your network and post to your social media accounts. Start your own campaign today! Visit the Teamraiser website or contact Jill Siar to get started.

CURE Crew is comprised of volunteers from around the country who are committed to furthering CURE’s mission through fundraising and awareness building activities. Many CURE Crew members are event hosts on behalf of CURE in their community. These unique events range in size and scope, from bake sales to golf outings and many activities in between.

Mikki and David Lewis, hosts of The Cupid Chase

Bernie and Sage Clark, supporters of their wife and mother’s Endurance Race
CURE Sustainers Commit to the Search for a Cure

The greatest way to impact future cutting-edge epilepsy research is to support new innovation and discoveries on a regular basis. A committed group of concerned members in the epilepsy community have done just that by becoming CURE Sustainers, making automated monthly donations to our organization. Monthly donations help ensure that CURE is able to fund new research projects in hopes of ending the devastation of epilepsy.

Why should you join the CURE Sustainers?

1. CURE Sustainers help impact new discoveries in epilepsy research. Your continuous support will offer hope to all the patients and families who share one wish—a cure for epilepsy.

2. It allows you to make an even greater impact. By making smaller contributions throughout the year, you can donate more over the year and impact epilepsy research at a larger scale.

3. Giving on a monthly basis is easy and convenient. An amount of your choosing will be charged automatically to your credit card or debited from your bank account each month.

4. It’s flexible. If you want to change or stop your monthly donation at any time, just let us know!

5. Your dollar goes further. Monthly giving saves time and money on gift processing, printing, paper, and postage.

With your help, we will one day achieve our mission to cure epilepsy and close our doors.

To join this special group of CURE Sustainers, please contact Elizabeth Krumwiede at 312.589.5573 or visit the CURE website.
Thank You for Joining us at Drive for CURE, in Support of Epilepsy Research!

A day of golf on a private Jack Nicklaus course

“The Drive for CURE golf outing was founded by Susan and James Schneider in 2004 to honor their daughter, Julie, who lives with epilepsy. Over the years, Drive for CURE has contributed more than $1,000,000 to our mission to cure epilepsy, transforming and saving millions of lives. This year, over $70,000 was raised to fund the CURE's next Julie's Hope Award named grant! To our Honorary Chairs, sponsors, and all who attended—thank you for joining us and making this event a success! See you in 2017!”

T. Scott Leisher
2016 Golf Chair
CURE Board of Directors

Funds from this event have resulted in three named “challenge” grants to scientists around the country, helping advance science towards a cure:

Gabriella D'Arcangelo, PhD
Rutgers University

Brian Litt, MD
University of Pennsylvania

John Huguenard, PhD, and Jeanne Paz, PhD
Stanford University

About Wynstone Golf Course

Wynstone maintains a collegial, yet sophisticated atmosphere. The breathtaking course was crafted by golf legend Jack Nicklaus, and his vision generated a championship golf course that is recognized among the "Top 100" in the US.
CURE Board of Directors 2016

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Sharon O’Keefe – *Board Chair*
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Blake Cunneen – *Director*
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Robin Harding – *Chief Executive Officer*
Brenda Aranda – *Director of Marketing Communications*

*Member of Executive Committee

Our mission is to **CURE** epilepsy, transforming and saving millions of lives. We identify and fund cutting-edge research, challenging scientists worldwide to collaborate and innovate in pursuit of this goal.

**Our commitment is unrelenting.**