



NeuroPace Announces Final Results from the Largest Prospective Clinical Study in the Field of Neuromodulation with 9-Year Follow-Up at the 2018 American Epilepsy Society Annual Meeting

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More than One-Third of Drug-Resistant Epilepsy Patients Achieved \geq 90% Seizure Reduction with the RNS System.

NEW ORLEANS—(BUSINESS WIRE)—American Epilepsy Society Annual Meeting, Booth 519 — NeuroPace, Inc., a Silicon Valley-based medical technology company that recently launched the Next-Gen RNS[®] System for refractory epilepsy, today announced complete results from its groundbreaking Long-Term Treatment Study that prospectively evaluated 256 patients across 33 epilepsy centers with nearly 1,900 patient implant years of follow-up. Treatment with the RNS System, the world's only brain-responsive neuromodulation system, resulted in significant seizure reduction and improved quality of life for patients, including improved memory and cognition¹. Drug-resistant epilepsy patients in the study (who had a median of 10 seizures per month) experienced the following long-term clinical outcomes:

- Approximately 3 out of 4 patients responded to therapy, achieving at least 50% seizure reduction; 1 in 3 patients achieved at least 90% seizure reduction.
- 28% of patients experienced seizure-free periods of six months or longer and 18% experienced seizure-free periods of one year or longer.
- Median seizure reduction across all patients was 75% at 9 years.
- Quality of life improvements (including cognition) were sustained through 9 years, with no chronic stimulation-related side effects.

"This 9-year landmark study is the largest and longest prospective neuromodulation trial in the field of epilepsy," noted Dr. Dileep Nair, a paid consultant to NeuroPace, principal investigator of the study and section head of adult epilepsy at Cleveland Clinic's Neurological Institute. "Brain-responsive neurostimulation not only demonstrates compelling long-term seizure reduction for patients, but also provides physicians with ongoing neural recordings that have improved our understanding and treatment of seizures."

As the first and only FDA-approved medical device that utilizes brain-computer interface technology for epilepsy, the RNS System offers the most advanced treatment option for patients with focal seizures who have not responded well to medication. Unlike anti-epileptic drugs or resective surgery, brain-responsive neuromodulation outcomes typically improve with time and do not cause the cognitive side effects that are associated with those alternatives. The RNS System is now available at nearly all comprehensive epilepsy centers in the United States and is widely covered by private and government insurance.

"We are excited about the strong results demonstrated in our Long-Term Treatment Study, but we recognize that this is just the beginning," noted NeuroPace Chief Medical Officer Martha Morrell. "The neural recording capability of the RNS System provides us with an unprecedented window to the brain. Our research focus now is to apply artificial intelligence to this rich data set to optimize therapy settings and improve clinical outcomes faster. The neural data has revealed remarkable discoveries about how the brain functions over months and years—these insights have the potential to lead to the treatment of other brain disorders that affect millions of people worldwide."

About Epilepsy

1 in 26 Americans will develop epilepsy in their lifetime, with approximately 150,000 new cases of epilepsy diagnosed annually. An estimated 3 million Americans currently live with epilepsy. Epilepsy is a chronic disorder, the hallmark of which is recurrent, unprovoked seizures. More people live with epilepsy than autism spectrum disorder, Parkinson's disease, multiple sclerosis and cerebral palsy – combined.²

About the RNS[®] System

The RNS System is the world's first and only closed loop brain-responsive neurostimulation system designed to prevent epileptic seizures at their source. As a type of brain-computer interface, the RNS System treats seizures by continuously monitoring brain waves, recognizing each patient's unique "seizure onset fingerprint," and automatically responding with imperceptible electrical pulses before seizures occur. The RNS System is composed of a neurostimulator, leads that are placed at the seizure foci, a remote monitor used by patients to upload their data, and a RNS Tablet and Patient Data Management System (PDMS) used by physicians. Physicians can remotely view their patient's electrographic data on a secure website, and program the device settings to personalize therapy for each individual's unique brain patterns.

The RNS[®] System is an adjunctive therapy for adults with refractory, focal onset seizures with no more than 2 epileptogenic foci. See important safety information at <https://neuropace.com/safety/>

About NeuroPace

NeuroPace is the global leader in the emerging field of brain-computer interface technologies, which is projected to become a \$1.2 billion market by 2024. We are dedicated to developing groundbreaking technology and advancing brain science to improve the quality of life for millions of individuals who suffer from neurological disorders. The company's first product, the RNS System, is the only FDA-approved brain-responsive neurostimulator for the treatment of focal onset refractory epilepsy. In addition to treating epilepsy, brain-responsive neuromodulation holds the promise of treating other brain disorders that impact quality of life for millions of patients throughout the world.

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¹Loring DW et al., Epilepsia, 2015

²Epilepsy Foundation. "Facts about Seizures and Epilepsy."
<http://www.epilepsy.com/learn/epilepsy-101/facts-about-seizures-and-epilepsy>

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