

MED TECH

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OUTLOOK



Precisis

A Treatment Beyond Drugs

Figures speak for themselves: a staggering 4.5 million people in Europe have focal epilepsy. Most patients with epilepsy are taking at least one medication, but for 30 percent of the patients, drugs alone don't seem to help, or they are experiencing severe side effects. Brain surgery is another treatment option, but only 1 percent of patients are candidates for that. Even fewer accept this option, as having parts of your brain removed can be – understandably – quite scary. When epileptic patients stand at the crossroads, where drugs have failed to provide a cure, innovative efforts of Precisis opens a new doorway. “We offer our help to the 30 percent of the drug-resistant patients,” says Dr. Angela Liedler, CEO of Precisis.

Based in Heidelberg, Precisis has been developing innovative medical products since 2004. Precisis has a heterogeneous team consisting of stimulation specialists with years of experience in treating Parkinson's disease. Precisis has built a technology aimed at improving the lives of patients who have epilepsy and other brain diseases. Precisis offers individualized and precise treatment methods in the field of neurostimulation that focuses on cortex stimulation procedure. Their innovation platform EASEE® or Epicranial Application of Stimulation Electrodes to Ease brain symptoms is suitable for individuals with epilepsy for whom medication no longer works or undergoing brain resection is out of the question. EASEE® can also be set up to target other brain diseases such as cognitive dysfunction, depression and rehabilitation after stroke.

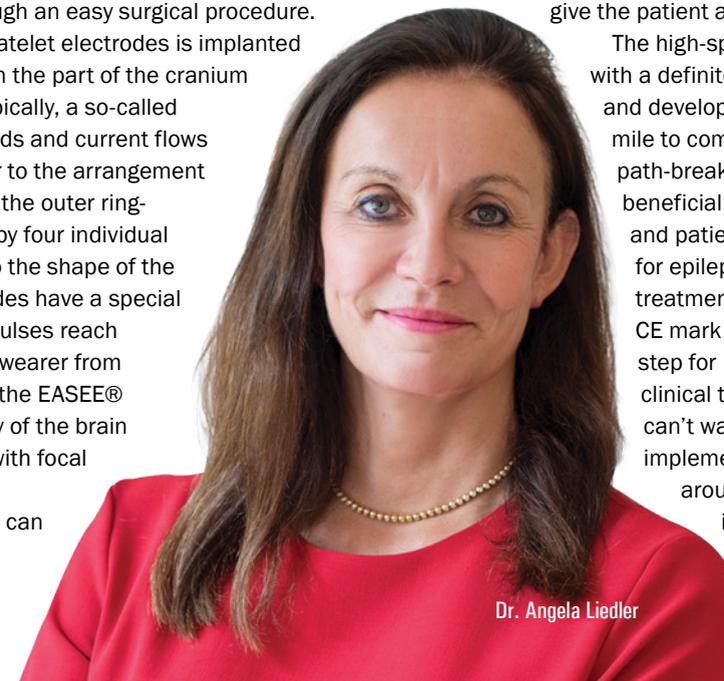
EASEE® offers a precise, individualized, and personalized stimulation through an easy surgical procedure. The thin electrode mat with platelet electrodes is implanted by surgeons subcutaneously in the part of the cranium where the epilepsy occurs. Typically, a so-called Laplace electrode enables fields and current flows to be generated perpendicular to the arrangement plane. In the EASEE® system, the outer ring-shaped electrode is replaced by four individual electrodes in order to adapt to the shape of the skull. The five platelet electrodes have a special depth effect; their current impulses reach the affected brain area of the wearer from the surface of the head. After the EASEE® treatment, reduced excitability of the brain can be seen among patients with focal or multifocal epilepsy. In a few months, this neuromodulation can

even reduce seizures. Depending upon the polarization, the EASEE® system adapts an inhibitory effect or an activating effect to the brain, based on the disorder targeted. EASEE® system's software is programmed with a learning algorithm that adapts to each patient's needs.

“Precisis offers a precise, individualized, and personalized neurostimulation platform that eases out the conditions for people with focal epilepsy or seizures, where drugs fail to yield results

The case study of an eighteen-year-old patient who has epilepsy is perfect for highlighting how EASEE® successfully treats focal epilepsy among patients. As an effect of epilepsy, the drug-resistant patient has been facing instances of seizures since the first year of being diagnosed, with falls more than thrice a day. The patient had a problem in the speech area of his brain and could not be resected by neurosurgery. The Precisis team implanted its EASEE® electrode right above the speech area of the patient's brain where the seizures mainly occurred. After undergoing three months of stimulation, the patient was nothing but fit as a fiddle—his seizures reduced, and he started witnessing the improved quality of life. Dr. Angela remembers how emotional the journey has been for Precisis to give the patient a new life post-treatment.

The high-spirited Precisis team, with a definite focus on innovation and development, is going the extra mile to come up with even more path-breaking products that are beneficial to both neurologists and patients. With EASEE® for epileptic and other brain treatments gearing up for the CE mark certification, the next step for Precisis is to start FDA clinical trials in the U.S. “We can't wait to get EASEE® to be implemented so that patients around the world can access it,” says Dr. Angela.



Dr. Angela Liedler