

Improved seizure detection for optimised treatment

## SeizeIT



### Unpredictable seizures

Epilepsy is one of the most common neurological diseases globally, affecting 50 million people worldwide.<sup>2</sup> It represents a group of conditions characterised by recurrent and unpredictable seizures that start in the brain.<sup>3,4</sup> Seizures are associated with an increased risk of injury, hospitalisation and death, and can also lead to anxiety and depression.<sup>4</sup>

An increasing number of antiepileptic drugs (AEDs) have become available to treat epilepsy.<sup>3</sup> However, inaccurate seizure reporting makes it difficult to diagnose the condition and therefore optimising treatment for epilepsy remains a challenge.<sup>1</sup>

With accurate diagnosis and effective treatment an estimated **70% of people** with epilepsy could **live seizure free**.<sup>2</sup>

### Monitoring seizures – beyond self-report

Self-reporting is the current standard approach for monitoring seizures.<sup>6</sup> However, it can be difficult for patients to detect seizures themselves for a number of reasons including that they may occur during sleep. As a result, patients are only reporting around half of seizures.<sup>6</sup>

In collaboration with epilepsy patients, SeizeIT have co-created a device that can provide accurate reporting of seizures on a 24/7 basis in a real-world setting. The comfortable, wearable device gives healthcare professionals unique insights into how patients are responding to treatments, enabling them to optimise treatment for the patient.

A discreet wearable device providing a **precise quantitative analysis** of seizure activity

### Collaborating to turn ideas into reality

Improved seizure detection can facilitate better diagnosis and provide patients with more effective, tailored treatment. But the increased accuracy of seizure monitoring achieved with SeizeIT extends past the patient, equipping researchers with valuable data to develop and test new AEDs.

*“SeizeIT is a great example of a project team that’s been able to draw on the strength of EIT Health’s network. By bringing these different people together, we are breaking down barriers to health innovation that exists across the continent”*

**Katharina Ladewig**  
Managing Director, EIT Health Germany

*“EIT health has helped us significantly in providing a network and access to clinical centres, which we could not have accessed on our own.”* **Charl van Zyl**,  
Head of Neurology Solutions, UCB

## spotlight

### Improved seizure detection for optimised treatment

SeizeIT is a consortium of EIT Health partners committed to improving the care and treatment of people with epilepsy, through collaboration and innovation. In partnership with EIT Health, SeizeIT has created a discreet wearable device that enables comfortable, unobtrusive seizure monitoring outside the hospital environment.

Accurate monitoring of seizures is essential in understanding seizure frequency, and in turn, treatment response, enabling clinicians to prescribe treatments that are specifically tailored to the individual.<sup>1</sup>

*“With SeizeIT, we would be able to take an informed decision, optimise the patient treatment, and get the right treatment for the right patient at the right time.”*

**Gergely Vertes**, Solution Accelerator, UCB



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