Docket #: S18-486

Portable Nystagmus Detection and Monitoring Device for Diagnosis and Management of Vestibular Disorders

Stanford researchers have created a portable, wearable device for long-term nystagmus tracking to better diagnose episodic vertigo. Current methods utilize head goggles in video nystagmography to monitor eye movement while the patient is in a clinical setting. However, patients are not guaranteed to experience an episode in that short time frame, leading to poor diagnostic accuracy. Instead this portable device is meant to be worn while the patient completes their daily routine and provides data over 24-hour periods. This allows doctors to reduce misdiagnosis by detecting eye movement during an episode to identify underlying inner ear and neurological causes of dizziness.

Stage of Research

- Prototype

Related Dockets: More details of the device design covered in S23-157

Applications

- **Diagnosis and management of vestibular disorders**
- Discovery of interictal characteristics of vestibular disorders

Advantages

- **Portable, non-clinical operation**
- Long-term monitoring
- Compatible with daily activities

Patents

- Published Application: WO2021141850
- Published Application: 20230018876

Innovators

- Peter Santa Maria
- Kristen Steenerson
- Michael Silvernagel
- Ada Poon
- Po Hung Kuo
- Danyang (Dan) Fan
- Stephen Kargotich
- Jay Dhuldhoya
- Ryan Ressmeyer

Licensing Contact

Michael Bellas

Licensing Associate

Email