



DRY EEG ELECTRODES FOR FAST DETECTION OF NON-CONVULSIVE EPILEPTIC SEIZURES

Funded by Bruxelles-Capital Region - Innoviris

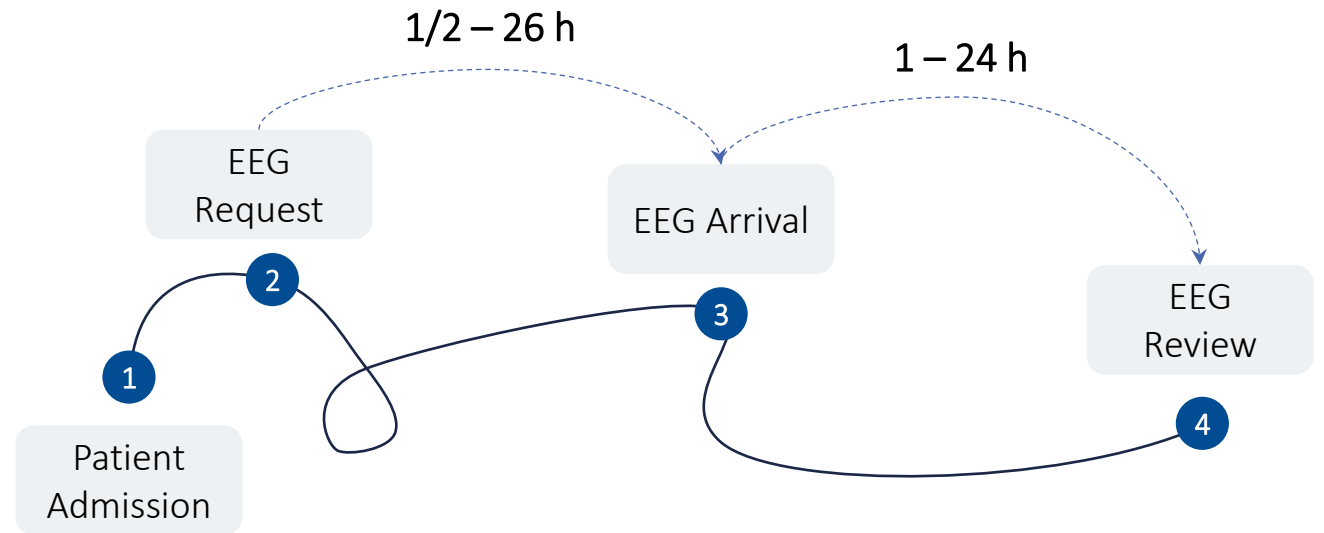
EEG

- Brain electrical activity recording
- Main neurological diagnosis and monitoring modality
- Superior temporal resolution [3]
- Very time-consuming [2]



NCSE

- Non-Convulsive Status Epilepticus
- 1/10 brain traumas – 1/5 critically ill patient [1, 4, 5]
- EEG is only way to diagnose
- Only 30 minutes to act before irreversible consequences [5]



Main activities



- Research & Development
- Business Development
- Intellectual Property
- Regulatory
- Production

EEG SENSOR DEVELOPMENT TIMELINE

DRY ELECTRODE DESIGNS

- Signal OK
- Excessive artefacts sensitivity

HYBRID DESIGNS (DRY OR WET)

- Improved signal
- Improved usability
- Short recordings

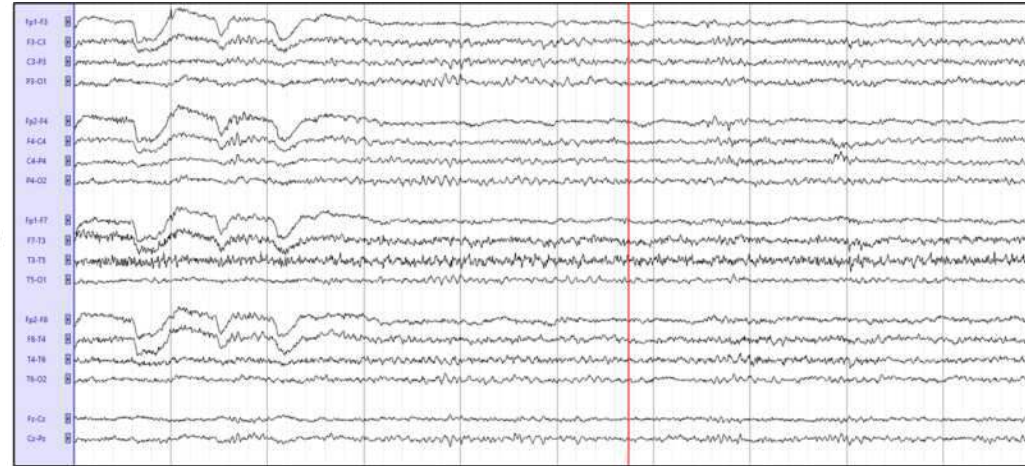
SEMI-DRY DESIGNS



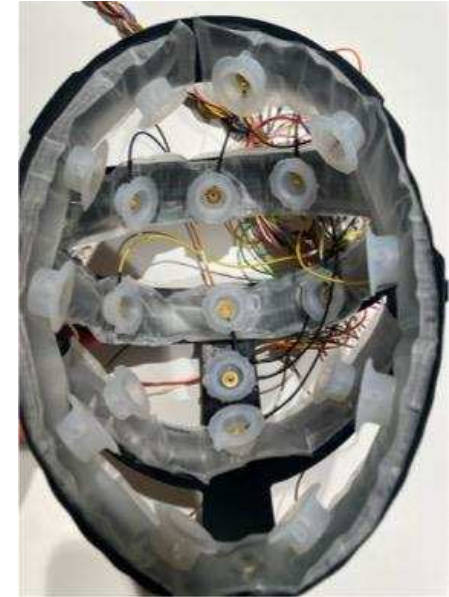
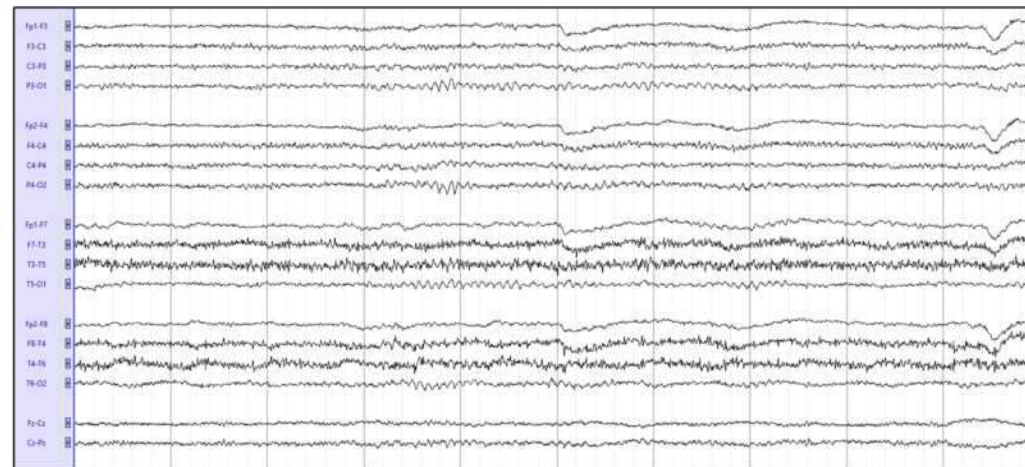
Semi-Dry Electrode – Results – 10 Healthy Subjects

- State of the art signal quality
- Setup in 9 minutes without EEG experience.
- Continuous recording: 3h30, potential for more.
- Detects alpha waves.
- 10-20 standard 21 electrodes setup.

t +10 min



t +60 min



Thank You For Your Attention

— FADING-SUN

EEG For Everyone, Anywhere, Anytime



Bibliography

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4. Sutter, Raoul, Stephan Rüegg, and Peter W. Kaplan. 2012. "Epidemiology, Diagnosis, and Management of Nonconvulsive Status Epilepticus." *Neurology: Clinical Practice* 2 (4): 275–86. <https://doi.org/10.1212/CPJ.0b013e318278be75>.
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