

CASE STUDY

INSIGHTS INSIDE THE BRAIN: MULTI-PARAMETER NEUROMONITORING IN A SINGLE SYSTEM

Problem – Challenge

Stroke and brain injury are leading factors for disabilities and death worldwide. The major goal in emergency and intensive care is to avoid secondary brain damage after stroke, head trauma, cardiac arrest, and during surgery. However, as of today a practical method for an adequate monitoring at the bedside is still missing.

Solution

NeMoDevices, a spin-off company from the University of Zurich and ETH, provides a revolutionary neuro-monitoring system with two products: a minimally invasive, disposable probe (NeMoProbe), and a non-invasive, semi-disposable patch (NeMoPatch). Both are based on near infrared spectroscopy and work with the same control unit. Light at different wavelengths in the near infrared spectrum is coupled from a tiny laser into the brain tissue and collected after absorption and scattering by light detectors. This provides continuous and reliable information on the most crucial parameters regarding survival and outcome, which allows for higher safety, better treatment, and reduced patient stay at the hospital. NeMo Probe has been granted CE Mark in 2015. CE Mark approval for NeMo Patch is anticipated in 2017.

