

In-vivo, Wireless, Fast-Scan Cyclic Voltammetry System

Grant R44NS050935 | Period of support: 11/2004 – 6/2010

Challenge/Problem:

Current data acquisition systems for pre-clinical neuroscience studies are often laborious, have limited data sample rate, poor resolution – in general are not user friendly. It is also difficult to link behavior with neurochemical studies.

Current/Near Term Products:

A wireless, head-mounted, fast-scan cyclic voltammetry (FSCV) system to measure monoamine neurotransmitters such as dopamine will be available in 2010. We currently have biosensor and EEG/EMG systems on the market.

Approach:

Develop turnkey systems – hardware and software – that give rapid sampling rates, good resolution, and offer a complete package for the researcher. These systems are both wireless and tethered.

Future Plans:

In the next 5 years, Pinnacle plans to offer a complete suite of products (biosensors, biopotential measurement systems, FSCV, Lab-on-chip) capable of measuring a wide range of neurochemical or neuroelectrical processes for basic or translational research as well as pre-clinical studies.

Business Name and Point of Contact:

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Collaboration/Partnering Opportunities:

Pinnacle is always looking for new collaborations and partnerships. We look for input from pharmaceutical and other collaborators to plan future tool development efforts.

Keywords: telemetry; data acquisition; dopamine; pre-clinical