**AutoEEGTM: EEG Analytics From Big Data**

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EEGs are the most pervasive neural diagnostic tool; they require a highly trained neurologist to analyze them. This analysis is time consuming and expensive. *AutoEEGTM*enhances productivity by autoscanning EEG signals and flagging sections of the signal that need further review by a clinician. The tool reduces the amount of data needing manual review by two orders of magnitude, offering substantial productivity gains in a clinical setting. This clinical decision support tool is based on proven, advanced, deep learning technology. Detection accuracy on clinical data is 95% with an extremely low false alarm rate (less than 5%), which makes it acceptable for clinical use. The automatically transcribed EEG signals can be viewed from any portable computing device. It also has the ability to learn from data, helping in future decision making, providing real-time feedback to aid in diagnosis, and, for patients undergoing long-term monitoring, creating an alert when abnormal signals are identified.

This market-leading product (1) enables clinical neurologists employing a volume-based business mode to decrease the time spent analyzing an EEG and thereby increase billing, (2) allows pharmas to assess changes quantitatively in neural activation during clinical trials, and (3) allows neurologists to order and bill for substantially more long-term monitoring tests based on this proven decision support tool.At present, innovation in commercial clinical decision support tool development is minimal, while the global market for rapidly diagnosing brain-related injury and disease is growing. The global brain function monitoring market is currently ~ $1.25B (2015) and expected to average 5% growth/year over the next 5 years. *AutoEEGTM* is based on technology that has been successful in a wide range of signal processing applications (e.g., speech recognition). Emerging markets beyond traditional EEG clinical applications include chronic traumatic encephalopathy (e.g., sports-related head injuries and post-traumatic stress disorder), sleep disorders and Alzheimer’s disease. This technology also enables real-time event detection for ambulatory EEG applications.