Deep Brain Stimulation
Copenhagen University Hospital and Zealand University Hospital
The world’s first optical fiber DBS system

Magnetic Resonance Imaging (MRI) compatible
1.5T, 3.0T, MR-PET and 7.0T

Value proposition/USP
Electrical stimulation, such as Deep Brain Stimulation (DBS), is pharmacological therapy going digital. The neurostimulator delivers an adjustable stimulus to a specific target, thereby reducing systemic side effects as compared to pharmacological therapy. Today, neurostimulation is used to treat movement disorders (Parkinson’s Disease, tremor and Tourette’s syndrome) and cardiac disease (use of pacemakers), and it lends promise to treat other neuropsychiatric disorders, e.g., Alzheimer, headache, depression, addiction, obsessive compulsive disorder, pain and rehabilitation.

Business Opportunity/Objective/Commercial Perspectives
The apparatus is applicable for use in all MRI scanners (36,000 worldwide) as a combined disposable and non-disposable unit with software license opportunities. The market is huge and fast growing, which lends promise to large revenues. The applications are functional MRI scans of deep brain stimulation, spinal cord stimulation, transcutaneous nerve stimulation, peripheral nerve stimulation, cranial nerve stimulation, electrical muscle stimulation, cortical multi-electrode stimulation, retinal multi-electrode stimulation, gastric electrical stimulation therapy and cardiac stimulation (pacemakers).

Technology Description/Technology Summary
• Optic fiber solution (Tx/Rx)
• No signal interruption between scanner and equipment
• Battery powered floating patient units
• All stimulation data is optical received and logged

Development Phase/Current state
• Patent application is submitted
• Preclinical trials have been conducted and scientific articles are in writing for international peer reviewed journals.
• Designed for easy and low cost EMA/FDA and CE approval

The Inventors
Anders Ohlhues Bandrup, R&D engineer
Louise Møller Jørgensen, MD, PhD
Carsten Thomsen, MD, Professor

Contact Information
Anders Ohlhues Bandrup +45 61 70 00 79
aoba@regionsjaelland.dk

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Technology Seeking: Funding/Investors Licensee Partner/Research Collaboration IPR Sale

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