Leader in navigated, non-invasive brain stimulation therapy and diagnosis

Nexstim Plc is developing and marketing world-leading E-field navigated non-invasive brain stimulation platforms for therapeutic (NBT®) and diagnostic (NBS) and applications. The Company is headquartered in Helsinki, Finland, and listed on Nasdaq First North Finland and Nasdaq First North Sweden.

Nexstim owns rights to its unique NBS and NBT® Systems’ software developed in-house and our core algorithms are kept as trade secrets.

NBT® – Specifically targeted stimulation

Nexstim’s NBT® system is based on unique navigated Transcranial Magnetic Stimulation (nTMS) technology which allows for accurate, reproducible and non-invasive brain stimulation in therapy with the aim of targeting indications with significant unmet clinical need. Its initial applications are for the treatment of stroke, depression and chronic pain.

- FDA cleared for treatment of major depression
- E-FIT Phase III supplementary trial is ongoing for the use of NBT® in stroke rehabilitation; completion expected in mid-2018 allowing Nexstim to file for FDA clearance
- CE marked for treatment of stroke, major depression and chronic neuropathic pain

NBS – Demonstrating the value of navigated stimulation

Nexstim’s NBS system is the only FDA cleared and CE marked system based on navigated Transcranial Magnetic Stimulation (nTMS) for the pre-surgical mapping of the speech and motor cortices of the brain.

Mapping allows for increased extent of resection, which has been shown to correlate independently with patient survival. The device has demonstrated 46% increase in progression free survival in low grade gliomas.

- FDA cleared and CE marked
- sold to over 140 research universities and leading hospitals globally

NBT® method of treatment - allows for reproducible targeted stimulation of the specific therapy area of the brain

Process:
- Map the motor cortex:
  - Magnetic stimulation creating e-field – e-field modeling ensures navigation accuracy
  - Max stimulation is measured through EMG
  - Establish motor threshold at point of max stim
  - Dose set at
    - 120% depression
    - 110% stroke
    - 100% pain
    - ... of motor threshold
- Move coil to therapy location eg. DLPFC for depression
Stroke

Working to gain NBT’s US Approval for Stroke

Nexstim is conducting a supplementary 60 patient E-FIT (ELECTRIC FIELD NAVIGATED 1HZ RTMS FOR POST-STROKE MOTOR RECOVERY TRIAL) at five US centres (listed above) for its NBT® system in stroke. Data from the trial will be pooled with the excellent results from the active data in the previous Phase III NICHE trial. Positive results from the E-FIT trial following its expected completion in mid-2018 would allow Nexstim to file for FDA clearance and start marketing and selling its NBT® system for stroke rehabilitation in the US. The NBT® system is CE marked for the treatment of stroke in the EU.

Major Depressive Disorder (MDD)

Existing psychotherapy and pharmacological treatment options for MDD are suboptimal. Without navigation, the exact cortex area in need of TMS treatment is correctly targeted in just 30% of patients. The NBT® system can specifically target stimulation in a reproducible way. Nexstim has received FDA clearance for use of its NBT® system in the treatment of MDD and plans to begin marketing and sales of the device in the US in H1 2018. The NBT® system is also CE marked for this indication.

Chronic pain

40-50% of neuropathic pain patients are without effective pain relief. A study conducted by The Walton Centre, UK stated that 44% of patients undergoing NBT® therapy reported clinically meaningful pain relief of at least 3 weeks’ duration. The Walton Centre is currently conducting a follow up study to measure the long-term pain relief. The NBT® system is CE marked for the treatment of chronic pain in the EU.