

Nexstim

New Study Presents Impressive Results of Nexstim SmartFocus® nTMS Language Mapping

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Nexstim Plc (NXTMH:HEX, NXTMS:STO) ("Nexstim" or "Company") announces that a new study published in *Cancers* in January presents impressive results of nTMS language mapping in a large amount of patients. Using the robustness of Nexstim SmartFocus® nTMS data, the authors also introduce a new and more precise classification of what it means to be a "language eloquent" tumour, challenging the traditional methods that seek to only identify hemispheric dominance for language.

The study "[Non-Invasive Mapping for Effective Preoperative Guidance to Approach Highly Language-Eloquent Gliomas—A Large Scale Comparative Cohort Study Using a New Classification for Language Eloquence](#)", using Nexstim's NBS System with SmartFocus® nTMS, was published by a neurosurgical team at Technical University of Munich (TUM) in Germany.

The study included 140 consecutive patients with suspected language-eloquent brain tumours. Nexstim SmartFocus® nTMS pre-operative language mapping was performed on all these patients. In a very high number of patients tumour could be removed to the maximum extent, with gross total resection (GTR) achieved in 82.3% of cases.

Language networks are known to be complex and together with functional reorganisation and plasticity related to tumours, this complexness has resulted in a lack of standardized classification for language eloquent tumours. Based on this study the research team is now suggesting a new classification.

Classifications help surgeons better understand the level of risk associated with the resection of tumours and offer a basis to compare language eloquent tumours. The proposed new classification offers new hope to those patients who were previously deemed inoperable because they were not eligible for awake craniotomies.

Mikko Karvinen, CEO of Nexstim, commented: *"As described in the article, language eloquent tumours and the language networks in general are very challenging when it comes to neurosurgical procedures. This distinguished study shows how Nexstim's SmartFocus® nTMS mapping can help to get very high gross total resection rates in language eloquent brain tumour surgeries without jeopardizing patient's language function. In addition, it shows that the nTMS mapping can help to create and develop new criteria for neurosurgical risk assessment."*

Nexstim NexSpeech®, when used together with the NBS System 5, is indicated for non-invasive localization of cortical areas that do not contain essential speech function. NexSpeech® provides information that may be used in pre-surgical planning in patients undergoing brain surgery. Intra-operatively, the localization information provided by NexSpeech® is intended to be verified by direct cortical stimulation. The Nexstim NBS System 5 and NBS System 5 with NexSpeech® are not intended to be used during a surgical procedure. The Nexstim NBS System 5 and NBS System 5 with NexSpeech® are intended to be used by trained clinical professionals.

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Further information is available on the website www.nexstim.com, or by contacting:

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About Nexstim Plc

Nexstim is a Finnish, globally operating medical technology company. Our mission is to enable personalized and effective therapies and diagnostics for challenging brain diseases and disorders.

Nexstim has developed a world-leading non-invasive brain stimulation technology called SmartFocus®. It is a navigated transcranial magnetic stimulation (nTMS) technology with highly sophisticated 3D navigation providing accurate and personalized targeting of the TMS to the specific area of the brain.

SmartFocus® technology is used in Nexstim's proprietary Navigated Brain Therapy (NBT®) system, which is FDA cleared for marketing and commercial distribution for the treatment of major depressive disorder (MDD) in the United States. In Europe, the NBT® system is CE marked for the treatment of major depression and chronic neuropathic pain.

In addition, Nexstim is commercializing its SmartFocus® based Navigated Brain Stimulation (NBS) system for diagnostic applications. The NBS system is the only FDA cleared and CE marked navigated TMS system for pre-surgical mapping of the speech and motor cortices of the brain. Nexstim shares are listed on the Nasdaq First North Growth Market Finland and Nasdaq First North Growth Market Sweden.

For more information please visit www.nexstim.com