Axilum Robotics announce the installation of a new robotic system for Transcranial Magnetic Stimulation in Strasbourg, France

Strasbourg, July 31st 2017 - Axilum Robotics, specializing in the development of medical robots, today announced the installation of a robotized system for image-guided Transcranial Magnetic Stimulation (TMS) at the Center for non-invasive Neuromodulation (CEMNIS) of the University Hospital of Strasbourg, France.

The CEMNIS, coordinated by Jack Foucher, MD, assistant professor, psychiatrist and neurologist, is a therapeutic unit of the University Hospital of Strasbourg, France, dedicated to the treatment with neuromodulation of drug resistant psychiatric and neurological diseases.
The main technique is Transcranial Magnetic Stimulation or TMS. By repeating the stimulations, TMS allows to modulate the activity of targeted brain regions.
Are particularly concerned diseases like drug resistant major depression, chronic neuropathic pain, hallucinations and negative symptoms of chronic psychosis.
What makes the CEMNIS unique is the fact to offer individualized TMS targeting thanks to research in neuro-imaging and the development of robotized TMS coil positionning at ICube laboratory. The CEMNIS stays strongly commited in innovation and research, particularly to validate the superiority of individualized therapies, with the objective to make them available to all the patients.

TMS applications are numerous, ranging from neuroscience research to the treatment of drug resistant neurological or psychiatric diseases, which are the subject of increasing clinical investigations.

Axilum Robotics TMS-Robot is the first and only robot developed specifically for TMS. The hemispherical architecture of its arm is patented. It is intended to safely automate and improve the accuracy and repeatability of this non-invasive and painless brain stimulation technique, which is usually implemented manually

"Our team is particularly proud about the implementation of TMS-Robot at CEMNIS because Dr Foucher was one of the initiators, with Pr Michel de Mathelin, head of ICube laboratory, of the development of the prototype of the robot, from which Axilum Robotics developed its medical device. " explains Michel Berg, CEO of Axilum Robotics. *"We are convinced that this full robotized system built with our partners from Localite and MagVenture, will optimize the implement of individualized TMS protocols".*

"The robotic device allows us to implement complex protocols with multiple targets, particularly in case of image guided individualized protocols. Moreover, whether it is for individualized protocols or not, we have discovered an unexpected advantage of robotization for the stimulation of certain targets, otherwise difficult due to their access or because sensitive or excitable structures are on the way. Thanks to minor tweaks before the first session, it is most of the time possible to find a way to deliver the stimulation without pain or muscle contraction. Once the solution found, it is automatically repeated at each new session, without new intervention" details Dr Foucher, Coordinator of CEMNIS

The image guided and robotized TMS system implemented at CEMNIS

About Axilum Robotics

Axilum Robotics was founded in 2011 in Strasbourg, France, by a team of leading experts in medical robotics. The objective of the company is to provide researchers and health care professionals with robotic solutions to improve both technical medical procedures and medical resources management.

TMS-Robot is the first CE marked medical robot specifically designed for Transcranial Magnetic Stimulation (TMS).

Axilum Robotics is ISO 13485 certified for its Quality Management System since 2013, has received CE mark and Health Canada license for TMS-Robot in 2013 and benefits from an exclusive patent license agreement (US 8,303,478 ; Ca 2,655,433 ; EP 2032 066 B1). Centers from 7 countries have already been equipped with Axilum Robotics' TMS-Robot.

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