

BRAIN STIMULATION REHATT

REHABILITATION OF STROKE, BASED ON THE METHOD "REHATT" INCLUDING VIRTUAL REALITY (VR) AND REHABILITATION IN THE PATIENTS HOME INCLUDING AUGMENTED REALITY (AR).



Market need and potential

Stroke is the most common cause of long-term disability, and a huge burden for the community. It is a global problem, and the World Health Organization predicts that one in six people will suffer a stroke in 2030. Neglect is one of the most frequent and most devastating consequences of stroke. About 30% of all stroke patients have neglect. Neglect can be described as a deficit in attention to and awareness of one side of the body and the surrounding space in the room. The left side of objects disappears, the left side of the patient's own body may become unfamiliar and the ability to control the left arm might be lost. The prognosis for patients with neglect to regain independence is poor, as a consequence patients have to stay in hospitals for longer periods of time. Chronic neglect is a hindrance returning to a normal, independent, working and social life with huge burden and costs for the individual, their families and the society. Today there is a lack of effective treatment for neglect. Traditional stroke rehabilitation is not effective enough and 50% of neglect patients have persistent chronic neglect after their rehabilitation. There is an urgent need for effective screening methods to diagnose and assess neglect and for effective rehabilitation methods for neglect.

Business idea

Brain Stimulation offers a unique assessment and rehabilitation product, RehAtt, for stroke patients suffering from neglect. As the first step, RehAtt combines well established tests for assessment of neglect with the increased possibilities of a tablet. This combination enables for easier, faster and more accurate diagnosis of patients suffering from neglect. After initial assessment, RehAtt's unique rehabilitation method enhances the healing of a broken brain by combining neuro science with virtual reality. The design of the method is based on theory to give intense stimuli to specific areas and networks in the brain to enhance the rehabilitation effect. During the rehabilitation the patient interacts within a fun and stimulating 3D game and navigates with the paretic arm using a robotic pen. Scientific studies show that RehAtt have a significantly improved effect on patients' attention in tests and, more importantly, a generalized effect on improved attention in daily life activities.

Competition

Regular rehabilitation of neglect patients mainly consist of scanning training of daily life activities, there is no evidence for this being effective. There are a few new startup companies focusing on virtual reality and stroke rehabilitation. There is still insufficient unbiased evidence to support effectiveness of these companies' products and their focus has only been on the cognitive aspect of stroke rehabilitation.

Advantages

- Evidence based persistent effect on activities of everyday life for stroke patients with neglect
- A unique combination of hand training and cognitive rehabilitation
- Combined expertise in design advanced VR technology and cutting edge brain research
- Excellent usability in Proof of Concept study for use in clinics and prepared for use at home
- Fun and easy to use for both patients and professionals

Current status

RehAtt was evaluated in nine Stroke Rehabilitation hospitals in US and Europe during 2016 with overwhelming positive response from scientists, therapists and patients. RehAtt is CE-marked and has its first customers on the Swedish market. Brain Stimulation aims at an international launch during Q2 2019.



COMPANY PROFILE

Contact

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IPR

Brain Stimulation IPR strategy focus on developing the brand, trademarks and copyright.

Capital need

10 M SEK Q1 2019 - Q4 2021

Partnership

Brain Stimulation seek further funding and investment from private and institutional investors, and are also interested in strategic partnerships.

Team / Scientific advisors

Helena Fordell

Founder, owner, and Medical responsible, neurologist, MD Umeå University Hospital

Deryn Haggström

Chairman of the board, entrepreneur with long experience in internationalization and business development

Birgitta Johansson

experienced occupational therapist

Urban Ekman

Emil Palm

Business Advisors

Kurt Strömgren

Uminova Innovation

Helén Fält

Umeå Biotech Incubator

Background

Brain Stimulation AB was founded 2011. The company combines expertise in advanced VR technology and cutting-edge brain research in the diagnosis and stroke rehabilitation product RehAtt. With a scientifically proven transfer effect, RehAtt will help stroke patients reclaim their normal life.

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