



# Publication of results from an earlier study that showed cognitive improvements in people with Brain Injury after training with Brain+ Recover Computerized Cognitive Training product

BRAIN+ A/S  
Investor update

- Critical, early validation of Brain+ Computerized Cognitive Training technology as effective on specific cognitive outcomes relevant for patients with dementia
- Cognitive problems are primary symptoms in pre-stages of dementia and often caused by Alzheimer's disease
- Insights from this study have been built into both the design of Brain+' new dementia product, Cognitive Stimulation Therapy, and the next generation of cognitive training Brain+ is developing to target pre-stages of dementia in Alzheimer's patients

A pilot study from 2019, testing the feasibility and effect of two different computerized cognitive training programs, including Recover from Brain+, has been published in the highly recognized Journal of Brain Injury. In the study, a total of 59 brain injury patients participated including the active and control groups. Fourteen brain injury patients trained for 12 weeks using the Brain+ Recover program, a 2019 version of the Brain+ Cognitive Training technology.

The study findings provided a critical, early validation of Brain+ Cognitive Training technology as effective on specific cognitive outcomes relevant for patients with dementia. The study also provided valuable insights on the relevance of continuous support from health care professionals to help patients administer the training optimally and effectively. The study was carried out at The Center for Brain Injury by Katrine Svaerke, Jesper Mogensen, Frank Humle, Morten Tjørnlund and Sandra Pyke.

**Brain Injury is relevant to Brain+' dementia focus.** Brain Injury imposes significant risk of conversion to dementia, and the specific working memory problems in Brain Injury, and the benefits reported from the Brain+ Cognitive Training are highly relevant to the cognitive issues observed in Alzheimer's and dementia.

**The purpose** of the study was to test the feasibility and efficacy in people with brain injury in the chronic phase using two different cognitive training programs against a control group.

**The results** showed that Brain+ Recover is feasible to use in patients with Brain Injury, and when administered with support from therapist, is effective on specific subcomponents of

working memory. The effectiveness on these cognitive functions were unique to the Brain+ Recover Cognitive Training compared to the other conditions (control and other cognitive training program). The effects sustained at the six months follow up showing long term benefits of the training. There was no effect when patients trained without therapist support, indicating the important role of the therapist, and the need for developing support mechanisms to ensure motivation, compliance, and efficacy of the training.

**How the results have been used:** The efficacy findings from the study are being incorporated into the development of the next generation of Brain+ cognitive training technology targeting cognitive improvements in dementia and Alzheimer's patients. The findings on compliance (how to make patients best follow the training based treatment) have already been built into the design, development and launch strategy for the Cognitive Stimulation Therapy product, which is planned introduced to the German market in 2023 as part of the Rox Health pharma collaboration, announced on Dec. 15 2021. The publication now of the results in a highly recognized journal reconfirms the value and solidity of the insights and the strength of the collaborative approach Brain+ has with academic and clinical institutions.

**Kim Baden-Kristensen, CEO & Co-founder, Brain+:** *"I'm very pleased that we saw results of improved cognitive outcomes from the training training in this trial because it shows that one of our core technologies has effect on cognitive impairments, and what we learn from this study will enable us now to improve further on this technology. Our focus now is Alzheimer's disease and dementia, and we have plans to bring computerized cognitive training into future products in this space. Chronic brain injury patients have an increased risk of getting dementia, which may also open an opportunity here later. We will share more about our plans for computerized cognitive training in the coming time."*

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#### Published article link

*Effects of computer-based cognitive rehabilitation on working memory in patients with acquired brain injury in the chronic phase, a pilot-study*

Katrine Svaerke, Sandra Bruhn Pyke, Morten Tjoernlund, Frank Humle & Jesper Mogensen

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#### About Computerized Cognitive Training

*This method engages a user in cognitive exercises, which can be designed as engaging and fun computer-games. The exercises challenge the brain's functions to the limit of the user's abilities thus aiming to strengthen the neural networks of the brain related to a particular function, which is being trained. When Computerized Cognitive Training 'technology' is being referenced, it refers to the mechanisms of action, exercise designs, program designs, and knowhow, and not to a specific product. A product in this context uses one or several of the Brain+ technologies to address a specific unmet need in a specific user segment.*

#### About BRAIN+ [BRAINP]

*PROBLEM: Dementia is a terrible condition, crippling a person's independence and putting a heavy burden also on the family. With an aging population, dementia is threatening to overwhelm the health care systems of the world. New treatments and therapies are greatly needed.*

*VISION: Making effective dementia treatments available to everyone, digitally.*

*MISSION: To restore patients' independence and quality of life by treating and detecting cognitive decline in Alzheimer's disease and dementia.*

*SOLUTION: Digitizing best-in-class non-drug dementia therapies and enhancing them with cutting edge digital technologies, together with the world's leading experts, making them available on computers and smart phones in people's homes or at the clinic. A therapy here, simply means a person having to actively do something, interacting with a software program or another person, which is stimulating to the brain, or which results in changes in behavior that brings measurable health benefits. Such therapies can be used on their own or be combined with traditional drug treatments.*

*OUR DNA: We operate like a digital biotech company; our technologies and products are being rigorously tested, scientifically and clinically validated, regulated as medical products, and reimbursed and paid for by the state or health insurances.*

*POTENTIAL: The global costs of dementia will be \$2 trillion in 2030 (or equal to 2/3rds of the entire health care spend of the USA), the estimated market potential which our digital products could address will be \$24 billion and growing rapidly, and our target in 2030 is revenue in the hundreds of millions \$ based on licensing deals with strategic commercial partners, and we aim to close a first large multi-million \$-deal in 2025.*

*TEAM & TECH: We have built our knowledge base, know-how and network of global expert collaborators, over 10 years, and our technology portfolio is the results of R&D investments of over €10 million, which puts us in a unique position to become a global market leader in digital therapeutic solutions for dementia and Alzheimer's. We have a team with the deep and necessary expertise to succeed, including our Director of Science & Innovation from Coloplast, our CTO from Lundbeck, our Chief Commercial from Novartis, and our CFO from GN Hearing.*