

Doelgroep: gezonde proefpersonen

Project title	Physical Exercise to Bounce back from Perseverative Cognition: Focus on Bottom-UP and Top-Down Influences of the Heart-Brain Nexus
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Study period	2022-2026
Status of the project	Data collection
Funding	Fonds Wetenschappelijk Onderzoek (FWO)
Link to study website	https://www.gheplab.ugent.be/projects/
Neuromodulation technique	tDCS
Hardware	NeuroConn
Species	Human
Research question(s)	the overarching aim of this project is to target vagal nerve functioning via physical exercise (bottom-up gateway), combined with neuromodulation (top-down gateway), to have a strong beneficial potential to increase resilience
Stimulation parameters	2 mA
Stimulation target	DLPFC
Primary outcome	cardiovascular recordings, such as heart rate variability
Secondary outcome(s)	High-density EEG (128 electrodes) will be collected to investigate the link between brain oscillations as recorded by scalp EEG and cardiorespiratory indices at rest.
Inclusion criteria	Male and female medical staff with no physical or medical contraindications will be recruited.
Exclusion criteria	All stable or transient participants' confounder variables that influence heart rate variability, such as BMI, smoking, alcohol, caffeine, medication that affect the autonomic nervous system, cardiovascular problems among others, will be either controlled for or individuals with these will not be included.