



TRANSPORT2

- Eligibility -

Gottfried Schlaug MD PhD

**Beth Israel Deaconess Medical Center and Harvard
Medical School**

&

Wayne Feng MD MS

Medical University of South Carolina

Inclusion Criteria

Each subject must meet **all** of the following criteria to participate in this study:

- 18-80 years old;
- **First-ever unihemispheric ischemic stroke** radiologically verified, occurred within the past 30-180days
- **>10° of active wrist extension, >10° of thumb abduction/extension, and > 10° of extension in at least 2 additional digits; and**
- Unilateral limb weakness with a **Fugl-Meyer UE score of ≤ 54** (out of 66) to avoid ceiling effects; and
- An **absolute difference of FM-UE scores** between the two baseline assessments that is **≤ 2 points** indicating **stable motor impairment**; if subject is not stable, then he/she will be invited for a reassessment after 2 weeks (but no more than 3 reassessments); and
- **Pre-stroke mRS ≤2**; and
- **Signed informed consent by the subject or Legally Authorized Representative (LAR).**

Exclusion Criteria

Subjects who meet any of the following criteria will be excluded from the study

- **Primary intracerebral hematoma**, subarachnoid hemorrhage or **bi-hemispheric** or **bilateral brainstem ischemic strokes**;
- **Medication** use at the time of study that may interfere with tDCS, including but not limited to **carbamazepine**, flunarizine, sulpiride, rivastigmine, **dextromethorphan**;
- Other co-existent **neuromuscular disorders** (pre- or post-stroke) affecting upper extremity motor function
- Other **neurological disorders** (pre- or post-stroke) affecting subject's ability to participate in the study;
- Moderate to severe cognitive impairment defined as Montreal Cognitive Assessment (MOCA) **score < 20/30**;
- History of **medically uncontrolled depression** or other neuro-psychiatric disorders despite medications either before or after stroke that may affect subject's ability to participate in the study;
- **Uncontrolled hypertension** despite medical treatment(s) at the time of randomization, defined as **SBP \geq 185 mmHg or DBP \geq 110 mmHg** (patient can be treated, reassessed and randomized later);

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- **Presence of any MRI/tDCS/TMS risk factors** including but not limited to:
a) an electrically, magnetically or mechanically activated metallic or nonmetallic implant including cardiac pacemaker, intracerebral vascular clips or any other electrically sensitive support system; **b) a non-fixed metallic part in any part of the body, including a previous metallic injury to eye;** **c) pregnancy** (effects of MRI, TMS, and tDCS on the fetus are unknown); **d) history of seizure disorder or post-stroke seizure;** **e) pre-existing scalp lesion** under the intended **electrode** placement or a bone defect or **hemicraniectomy;**
- Planning to **move** from the local area within the next 6 months;
- **Life expectancy less than 6 months;**
- Has received **Botulinum** toxin injection to the affected upper extremity in the past 3 months prior to randomization or expectation that Botulinum will be given to the Upper Extremity prior to the completion of the last follow-up visit;
- **Concurrent enrollment in another investigational stroke recovery study;**
- Doesn't speak sufficient **English** to comply with study procedures;
- Expectation that subject **cannot comply** with study procedures and visits.