

ESTREL

Title: **Enhancement of STroke REhabilitation with Levodopa (ESTREL):** a randomized placebo-controlled trial

Trial number: NCT03735901

Sponsor investigator and Principal Investigator: Prof. Dr. med. S. Engelter, Felix-Plattner Spital und Universitätsspital Basel

PI KSA: Prof. Dr. med. K. Nedeltchev

Status: recruiting

Summary: Dopamine is a key player in processes of motor learning, reward, and brain plasticity. Preclinical research and studies with healthy individuals suggest that there is scope for benefit from applying levodopa, a precursor of dopamine, in addition to standardized rehabilitation, thus, pharmacologically enhancing stroke recovery. Motor deficits are common and affect quality of life in stroke patients prompting for motor improvement as a top priority.

The primary objective is to investigate whether levodopa compared to placebo given in addition to standardized rehabilitation based on the principles of motor learning is associated with a patient-relevant enhancement of functional recovery in acute stroke patients.