After an SCI, the enzyme, Rho, is activated by growth-inhibitory factors and regulates events that culminate in collapse of the neuronal growth cone, failure of Axon regeneration, and, ultimately, failure of motor and functional recovery. Inhibition of Rho activation is a potential treatment for injuries such as traumatic SCI. VX-210, an investigational agent, inhibits Rho. When administered extradurally after decompression (corpectomy or laminectomy) and stabilization surgery in a phase 1/2a study, VX-210 was well tolerated. Here, we describe the design of the SPRING trial, a multicenter, phase 2b/3, randomized, double-blind, placebo-controlled clinical trial to evaluate the efficacy and safety of VX-210 (NCT02669849). A subset of patients with acute traumatic cervical SCI is currently being enrolled in the United States and Canada. Medical, neurological, and functional changes are evaluated at 6 weeks and at 3, 6, and 12 months after VX-210 administration. Efficacy will be assessed by the primary outcome measure, change in upper extremity motor score at 6 months post-treatment, and by secondary outcomes that include question-based and task-based evaluations of functional recovery [1)].

1)
Fehlings MG, Kim KD, Aarabi B, Rizzo M, Bond LM, McKerracher L, Vaccaro AR, Okonkwo DO. Rho Inhibitor VX-210 in Acute Traumatic Subaxial Cervical Spinal Cord Injury: Design of the SPinal Cord Injury Rho INhibition InvestiGation (SPRING) Clinical Trial. J Neurotrauma. 2018 May 1;35(9):1049-1056. doi: 10.1089/neu.2017.5434. Epub 2018 Mar 1. PubMed PMID: 29316845; PubMed Central PMCID: PMC5908415.