

Why was the way so long from the bench to clinical trials for a regeneration enhancing anti-Nogo-A antibody therapy for spinal cord injury?

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Online Webinar

For Researchers



Speaker:

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Abstract

The membrane protein Nogo-A found in spinal cord and brain myelin and neurons strongly inhibits the growth and regeneration of nerve fibers in the adult CNS. Neutralization of Nogo-A by antibodies enhanced regeneration of injured nerve fibers in the rat and macaque monkey spinal cord and brain, as well as recovery of lost functions. Development and optimization of a human antibody against human Nogo-A required a close collaboration between our academic lab and pharma and biotech companies. For the clinical trial planning and the conduction of the Phase 1 and Phase 2 trials, collaboration with dedicated clinical colleagues in a multinational European clinical network was required.

Anti-Nogo-A antibodies are currently in a placebo controlled, double-blind Phase 2 proof-of-concept trial in acute, tetraplegic spinal cord injured patients.



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2. Schneider MP, Sartori AM, Ineichen BV, Moors S, Engmann AK, Hofer AS, Weinmann O, Kessler TM, Schwab ME (2019). **Anti-Nogo-A Antibodies As a Potential Causal Therapy for Lower Urinary Tract Dysfunction after Spinal Cord Injury.** J Neurosci. 39:4066-4076
3. Ogier R, Knecht W, Schwab ME (2020). **Academic leadership: (with)holding the keys to translational medicine?** Nature Med. 12: 1812-1813