Complete spinal cord injury is considered unrecoverable. Here we show that dogs whose dorsal cord has been fully transected recover locomotion after immediate treatment with fusogens (Polyethylene Glycol, PEG) within two months. Neurophysiological and DTI MR data confirm electrophysiological and anatomical continuity. This study suggests that a form of spinal cord injury can effectively be treated and points out a way to treat spinal cord injury patients by removing the injured segment and, along with vertebral shortening, reapproximating and fusing the two stumps.

Biography
Xiaoping Ren received his M.D in Harbin Medical University in 1984. He performed his Clinical and Research Hand Fellowship training in University of Louisville in Kentucky (1996-2000). During the period, Ren created a feasibility large animal CTA model for limb transplantation to allow modulation of the immune reaction and to investigate immunosuppressant. The Nation’s First Hand Transplantation in US was successfully conducted as a direct result of the preclinical swine composite tissue allotransplantation model (CTA). He joined the University of Cincinnati College of Medicine as faculty member in 2001, then appointed Assistant professor and Associate Professor. As well as CTA, another focus of his research program is to understand molecular and neuronal basis of non-ischemic nociceptor-induced cardioprotection. In UC. These studies were published in the Journal of Surgical Research and in Circulation. Ren has had over 40 publications in peer-reviewed journals. Currently, he is holding active Memberships of the American Association for Hand Surgery and the American Heart Association. He also service as peer-reviewer of several journals.

xren2@luc.edu