

April 22, 2026  
Stem Cell & Device Laboratory, Inc.  
<https://scad-kyoto.com/en/>

**Mature Schwann Cells Drive Robust Nerve Regeneration in Preclinical Research**  
**Collaboration study with Kyoto University Collaboration was Published in**  
**Neuroscience Insights**

SCAD announced that a collaborative study with the Department of Orthopaedic Surgery at Kyoto University Hospital has demonstrated that SCAD's human iPS cell-derived mature Schwann cells promote nerve regeneration in an animal model of peripheral nerve injury. The findings were published on April 17, 2026, in Neuroscience Insights.

Our published article

<https://journals.sagepub.com/doi/10.1177/26331055261443172>

#### Key Findings

- Enhanced axonal regeneration and thicker myelinated myelin.
- Accelerated recovery of sensory function and improved motor function, including toe extension
- Increased expression of skeletal muscle-related proteins
- Mature Schwann cells showed superior therapeutic effects over immature Schwann cells.
- Mature Schwann cells exhibited higher expression of nerve regeneration-related factors such as NGF, CCL2, and LAMA2

#### Future Outlook

Building on these findings, SCAD has advanced the optimization of its clinical grade manufacturing process for human pluripotent stem cells derived Schwann cells, and made progresses non clinical studies. SCAD plans to launch an investigator initiated exploratory trial in 2027 for severe cases of carpal tunnel syndrome. We also aims to expand development toward treatments for more serious neurological injuries, including spinal cord injury.

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