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Kidswell Bio Corporation (TSE:4584)

S-Quatre Corporation

Notable Advances in Basic Research on the Utility of SHED to Treat Cerebral Palsy

— Joint Research Paper with Nagoya University Published in a Top Journal —

Tokyo, January 26, 2026 – S-Quatre Corporation, a subsidiary of Kidswell Bio Group, is engaged in the research and development of novel cell-based therapies (regenerative medicine products) using stem cells from human exfoliated deciduous teeth (SHED), with the aim of developing new treatments for pediatric and rare diseases for which no effective therapies currently exist.

In collaboration with the Center for Maternal-Neonatal Care, Nagoya University Hospital, S-Quatre has been conducting joint research on SHED with the aim of developing a groundbreaking therapeutic approach for cerebral palsy (CP), a condition for which no fundamental treatment currently exists. As a result of six years of research, the team has, for the first time in the world, demonstrated therapeutic efficacy in animal models of cerebral palsy even when treatment initiated during the chronic phase - neurological symptoms have already become apparent. Furthermore, the study systematically elucidated key aspect of the underlying mechanism responsible for this therapeutic effect. The findings have been compiled into a jointly authored research paper, which has now been published in *Stem Cell Research & Therapy, one of the top journals.*

These findings constitute foundational scientific evidence that supports the interim results of a clinical study for CP disclosed by Nagoya University in November 2025, thereby providing a robust scientific rationale for the clinical development of SHED.

S-Quatre remains committed to the pursuit of SHED science, collaborating with leading external research institutions while accelerating research and development efforts to deliver this innovative therapy to patients and families living with CP and other intractable diseases as early as possible.

Background of the Study

CP is a disorder of posture and movement caused by brain injury resulting from various factors during the perinatal period. Since clinical symptoms are often not apparent shortly after birth, the condition is typically diagnosed later as neurological symptoms become evident during development. Hypoxic–ischemic encephalopathy (HIE) is one of the major causes of CP and therapeutic hypothermia may be applied in some cases to prevent long-term neurological sequelae, however, both applicable cases and therapeutic efficacy are limited. Consequently, there is a strong unmet need for the development of novel therapeutic approaches capable of restoring neurological function even when treatment is initiated during the chronic phase after diagnosis.

With respect to chronic-phase interventions aimed at neurological recovery, clinical studies using stem cells derived from bone marrow or umbilical cord have been conducted, however, no confirmatory clinical trial results have been reported to date. In animal models, while there have been reports demonstrating efficacy when

treatment was administered during the acute phase immediately after brain injury, no studies have been reported when intervention was initiated during the chronic phase after the onset of neurological symptoms. In this study, the research team systematically demonstrated the efficacy of therapeutic intervention in the chronic phase for the first time in the world by leveraging the power of SHED.

Key Findings of the Study

Following the establishment of a HIE model in neonatal rats as a CP model, therapeutic intervention with SHED was initiated one month after injury, corresponding to the chronic phase for rats. SHED was intravenously administered three times at two-week intervals, and comprehensive evaluations and analyses were performed over four months after the initial administration, yielding the following findings.

- At 24 and 48 hours after the initial administration of SHED, a subset of administered SHED was confirmed to have migrated into the brain.
- Two months after the initial administration, alterations were observed in the expression of protein groups involved in neurogenesis in the brain, and an increase in immature neurons was observed in specific brain regions
- Four months after the initial administration, an increase in mature neurons was confirmed in those brain regions, and significant improvements were observed in motor function as well as learning and memory functions of the animals.
- In cultured-cell experiments, SHED was shown to promote the proliferation of neural stem cells, and hepatocyte growth factor (HGF) secreted by SHED was identified as one of the factors contributing to this effect.

Collectively, these findings indicate that a fraction of intravenously administered SHED migrates into the brain and promotes neurogenesis via the secretion of growth factors, including HGF, thereby contributing to the restoration of impaired neurological functions despite intervention even in the chronic phase.

■ Published Paper

Kanzawa T et.al., ” Novel Stem Cell Therapy for Cerebral Palsy Using Stem cells from human exfoliated deciduous teeth ” *Stem Cell Research & Therapy,* January 23, 2026
URL: https://link.springer.com/article/10.1186/s13287-025-04828-y

■ Related release

Interim Results of SHED Clinical Study for Children with Cerebral Palsy Disclosed by Nagoya University , November 17, 2025

Evaluation of the Therapeutic Efficacy of Intravenous Administration of Human Stem Cells from Exfoliated Deciduous Teeth (SHED) in the Chronic Phase of Cerebral Palsy, January 26 2026
