

# NILS seminar

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演題名: Human neural stem cell-based cell- and gene-therapy in neurological diseases

Human neurological disorders such as Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis(ALS), Alzheimer's disease, multiple sclerosis (MS), stroke, and spinal cord injury are caused by a loss of neurons and glial cells in the brain or spinal cord. Cell replacement therapy and gene transfer to the diseased or injured brain have provided the basis for the development of potentially powerful new therapeutic strategies for a broad spectrum of human neurological diseases. However, the paucity of suitable cell types for cell replacement therapy in patients suffering from neurological disorders has hampered the development of this promising therapeutic approach. In this talk, I will report notable experimental and pre-clinical studies previously published involving stem cell-based cell and gene therapies for Parkinson's disease, Huntington's disease, ALS, stroke, spinal cord injury, brain tumors, lysosomal storage diseases and brain tumors and discuss the future prospects for stem cell therapy of neurological disorders in the clinical setting.

There are still many obstacles to be overcome before clinical application of cell therapy in neurological disease patients is adopted: (1) it is still uncertain what kind of stem cells would be an ideal source for cellular grafts, and (2) the mechanism by which transplantation of stem cells leads to an enhanced functional recovery and structural reorganization must be better understood. Steady and solid progress in stem cell research in both basic and preclinical settings should support the hope for development of stem cell-based cell therapies in neurological diseases.

日時 : 2010年3月5日(金曜日)、午後4時~5時

場所 : 研究所2階会議室

連絡先 : アルツハイマー病研究部 道川(5301)