Methods and Services

Virus Injections

Biosafety Level 2 Experiments

Biosafety level 2 experiments are becoming indispensable in neurodegenerative disease research. With this method, target proteins can be expressed or suppressed in distinct brain regions by intracerebral, intraventricular or even intravenous injection of virus expressing cDNA or shRNA of the target protein. The fully AAALAC-accredited animal facility of QPS Austria maintains a Biosafety Level 2 (BSL2) laboratory for mouse and rat experiments, including but not limited to e.g. lenti-, adeno- and adeno-associated (AAV) virus injections.

Here, P301L Tau AAV was injected in the ERC of APP_{SL} mice and spreading of Tau in the hippocampus could be observed.

- Injection of any biosafety level 1 or 2 virus
- Intracerebral, intraventricular or intravenous injection
- *In vivo* injection into mice and rats
- *In vitro* experiments

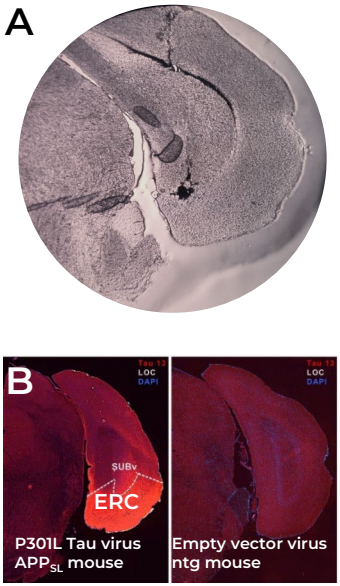

Figure 2: A: Verification of injection site by ink injection into the entorhinal cortex and B: Tau expression in the ERC after P301L Tau virus injection.

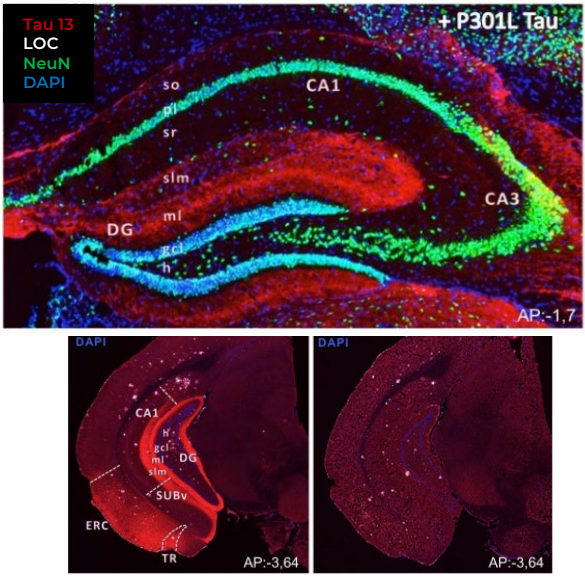

Figure 1: Recombinant adeno-associated virus serotype 9 (AAV9) with human P301L Tau gene or empty vector was intracerebrally injected into the ERC of 3 months old male APP_{SL} mice. (coordinates: AP: -1.8; ML: +/-1.4; DV: -1.4). Spreading of Tau into the hippocampus after P301L Tau injection into the ERC of APP_{SL} mice. Analyses were performed 1 or 3 months after virus injection.

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