



**Figure supplementary 2. Experimental design for determining the kinetics of T-cell infiltration, neuroinflammation and  $\alpha$ Syn expression.** *Foxp3<sup>gfp</sup>* reporter mice were anesthetized and received the stereotaxic inoculation of AAV ( $10^{10}$  vg/mouse) encoding human  $\alpha$ -Synuclein (AAV- $\alpha$ Syn) under the control of the CBA promoter into the right substantia nigra (SN) or sham surgery (PBS). Mice were sacrificed at different time-points and the expression of  $\alpha$ Syn in the SN and striatum was evaluated by immunofluorescence (IF), GFP (Foxp3), CD4 and tyrosine hydroxylase (TH) positive cells were quantified by IF in the SN, and Iba1 expression was analysed by immunohistochemistry (IHC) in the striatum (Str). The number of mice in each experimental group is indicated. The range of time-points included in each analysis is indicated. Each analysis indicates in parenthesis the number of Figure from the body of the paper where the corresponding results are shown.