Summary

Multiple system atrophy (MSA) is a late-onset rare movement disorder with unknown etiopathogenesis, rapid progression and presently, lack of efficient therapy. To address all those issues in clinical and post-mortem studies is very difficult and sometimes even impossible. For this reason animal models of the disease are strongly needed as a pre-clinical test-bed to study pathogenesis and analyse novel therapeutic strategies. The aim of the studies summarised in the habilitation treatise of Dr. Nadia Stefanova from the Section of Clinical Neurobiology at the Department of Neurology has been i) to develop and characterise animal models of MSA, ii) to study underlying pathogenic mechanisms in correlation to human MSA pathology, and iii) to validate the neuroprotective efficacy of candidate drugs as a rational for phase II clinical trials in MSA. All experimental interventions, behavioural and histological studies have been performed in the Neurological Research Laboratory of the Department of Neurology, Medical University Innsbruck.