Mouse Models MSA/OPCA Biobank

A53T ?-syn transgenic mouse

IDENTIFICATION

Causal gene(s)	Sporadic
Repeat size or mutation	WT (M7, M12, M20) and mutant (M83, M91) A53T human ?-syn, both hetero- and homozygous
Animal model	Mouse

MODEL DETAILS

Mouse strain / background	C57Bl/C3H
Type of model	Transgenic

TRANSGENIC CONSTRUCT

Transgenic construct: sequence type	cDNA
Transgenic construct: details	Expression plasmids (MoPrP.Xho) expressing mutant and WT A53 human a-syn
Promoter: gene	PrP
Promoter: species	Mouse

PHENOTYPE

Progression	Progressive
Hallmark features	Motor impairments, paralysis, death, intracytoplasmic neuronal ?-synuclein inlcusions

SOURCE & PUBLICATIONS

Originating lab / institution	University of Pennsylvania School of Medicine
Links to publications or public resources	Neuronal alpha-synucleinopathy with severe movement disorder in mice expressing A53T human alpha-synuclein - PubMed https://pubmed.ncbi.nlm.nih.gov/12062037/ 004479 - A53T u03b1-synuclein transgenic line M83 Strain Details https://www.jax.org/strain/004479