

Animal models in neurodegenerative diseases.

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Table 1. *Animal models of Parkinson's disease*

Type of model	Dopaminergic neuronal loss	Non-dopaminergic neuronal loss	Protein accumulation or inclusion	Symptoms	Some references
MPTP acute mice/monkeys	yes	no	no	yes but different from PD	Dauer et al. 2003; Rousselet et al. 2003
MPTP chronic osmotic pumps mice	yes	no	α -synuclein		Fornai et al. 2005
Rotenone rat	yes but variable	yes but discussed	α -synuclein and tau	yes	Betarbet et al. 2000; Höglinger et al. 2003; Höglinger et al. 2005
Annonacine rat	yes	yes	tau	yes	Champy et al. 2004
Paraquat rat	yes	no	?	?	McCormack et al. 2002
6OHDA intracerebral rat or mouse	yes	no	no	yes	Pycock, 1980; Sauer et al. 1994
Proteasome inhibition by peripheral injection	yes but has not been reproduced	no but has not been reproduced	yes but has not been reproduced	yes but has not been reproduced	McNaught et al. 2004; Bové et al. 2006
LPS intra nigral injection	yes	?	no	yes	Herrera et al 2000
Prenatal exposure to LPS	yes		yes	yes, in aged animals	Ling et al. 2004
α -synuclein over expression or mutation in fly	yes	?	yes	yes	Feany et al. 2000
α -synuclein mouse	no	no	yes	no	Rockenstein et al. 2002; Song et al. 2004; Fleming et al. 2004

DJ1 KO mouse	no	no	no	no	Goldberg et al. 2005; Kim et al. 2005
Parkin KO mouse	no	no	no	yes	Itier et al. 2003; Goldberg et al. 2003; Palacino et al. 2005; Von Coelln et al. 2004
Pink 1 drosophila	yes	no	?	yes	Park et al. 2006