Table S1. List of MAN-associated proteins modified in disease.

Disease	Protein involved	Modifications	Altered MAN	Refs.
PD	Parkin	LOF mutation leading to decrease in DRP-1 degradation	Mitochondrial fission	(Wang et al., 2011; Yu et al., 2011)
	Miro1	LOF mutation leading to impaired calcium homeostasis and increased mitophagy	Calcium signaling	(Grossmann et al., 2020)
	GBA1	LOF mutation abnormally prolonging lysosomal-mitochondrial tethering	Mitochondrial fission	(Kim et al., 2021)
Cancer	DRP-1	Increased activity leading to cell proliferation and migration	Mitochondrial fission	(Kashatus, 2018)
CMT-2A	MFN2	Mutation promoting mitochondrial hyperfusion by increased DRP-1 degradation	Mitochondrial fission	(Cartoni and Martinou, 2009)
	DRP-1	Increased R364W-MFN2-mediated ubiquitination leading to mitochondrial hyperfusion	Mitochondrial fission	(Das et al., 2021)
ALS	Sig-1R	LOF mutation leading to impaired binding to IP3R and mitochondrial dysfunction	Calcium signaling	(Al-Saif et al., 2011; Watanabe et al., 2016)
NASH and cancer	MFN2	Low expression leading to impaired PS transfer	Lipid exchange	(Hernández-Alvarez et al., 2019)
GM1-gangliosidosis	GLB1	LOF mutation leading to lysosomal dysfunction and neurodegeneration	Calcium signaling and Lipid exchange	(Sano et al., 2009)
NPC	NPC1	LOF mutation leading to accumulation of cholesterol at lysosomes causing cell death	Lipid exchange	(Wheeler and Sillence, 2020)

Abbreviations: amyotrophic lateral sclerosis (ALS); Charcot-Marie-Tooth disease type2A (CMT-2A); dynamin related protein 1 (DRP-1); β-glucocerebrosidase (GBA1); β-galactosidase (GLB1); Loss-of-function (LOF); mitofusin 2 (MFN2); Non-alcoholic steatohepatitis (NASH); Niemann-Pick type C (NPC); NPC intracellular cholesterol transporter 1 (NPC1); Parkinson's disease (PD); phosphatidylserine (PS); sigma-1R (Sig-1R).

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