Cell type	Molecule	Potential impact on remyelination
Oligodendroglial Precursor Cells (OPCs)	Myelin-associated neurite outgrowth inhibitor NogoA	Impairing remyelination Impeding neurite outgrowth Enhanced remyelination by anti-NogoA-Ab ozanezumab
	Membrane-bound repulsive guidance molecule A (RGMa)	Impairing remyelination Modulates T cell response Impeding neurite outgrowth Enhanced remyelination by anti-RGMa-Ab elezanumab
	Nogo-receptor interacting protein LINGO-1	Impairing remyelination Impeding OPC differentiation Enhanced remyelination by anti-LINGO-1-Ab opicinumab
	Envelope protein (Env) of the pathogenic human endogenous retrovirus type W (pHERV-W)	Impairing remyelination Impeding OPC differentiation Enhanced remyelination and reduced neurodegeneration by anti-pHERV-W Env-Ab temelimab
	Simvastatin	(Potentially) stimulating OPC differentiation and survival
	Quetiapine	Stimulating OPC differentiation and myelin protein production
	Clemastine fumarate	Stimulating OPC differentiation and remyelination
Neural Stem Cells (NSCs)	Chitinase 3-like-3 (Chi3l3)	Activating epidermal growth factor receptor (EGFR) Inducing pro-oligodendrogenic transcription factor signature Enhancing oligodendrogenesis
	Gli1	Impairing remyelination Immobilizing and impeding the differentiation of resident NSCs Enhanced remyelination by GANT61 (SMI of Gli1)
	Sirt1	Impairing remyelination Suppressing oligodendrogenesis from NSCs Activating downstream Akt and p38 MAPK Limiting the expansion of SVZ NSCs and OPCs Enhanced oligodendrogenesis by EX-527 (SMI of Sirt1)
	nuclear factor I X (NFIX)	Impairing remyelination Suppressing oligodendrogenesis from NSCs
	B-cell leukemia homeodomain 1 (Pbx1)	Early regulator of SVZ neuro- und oligodendrogenesis Priming factor to activate neuron-specific genes Dcx and Th
	prospero-related homeobox 1 gene (Prox1)	Enhancing SGZ neurogenesis and neuronal differentiation Downstream target of β-catenin-TCF/LEF signaling
	drosha and nuclear factor IB (NFIB)	Enhancing oligodendrogenesis Drosha enhances SGZ neurogenesis and suppresses oligodendrogenesis via suppression of NFIB
	nuclear factor-erythroid 2-related factor 2 (NRF2)	Enhancing SGZ neurogenesis Enhancing neuronal differentiation Regulating the expression of several antioxidant enzymes
	fibroblast growth factor receptor-3 (FGFR3)	Promoting remyelination Enhancing SVZ oligodendrogenesis Promoting migration of SVZ-derived OPCs to more distal areas
Microglia and peripherally-derived	Fractalkine receptor (CX3CR1)	Promoting remyelination Increasing microglial phagocytic capacity Improving extracellular myelin debris clearance
	Triggering receptor expressed on myeloid cells (TREM2)	Promoting remyelination Increasing microglial phagocytic capacity Improving extracellular myelin debris clearance

	TAM family receptors MerTK and Axl	Promoting remyelination Activating microglia and increasing microglial phagocytic capacity Improving extracellular myelin debris clearance
	Envelope protein (Env) of the pathogenic human endogenous retrovirus type W (pHERV-W)	Impairing remyelination Stimulating microglia-associated inflammation and neurodegeneration Decreasing microglial phagocytic capacity
	Matrix metalloproteinase 7 (MMP7)	Promoting remyelination Splitting fibronectin aggregates that disrupt OPC differentiation Secreted by microglia
	Long noncoding RNA (lncRNA) GAS5	Impairing remyelination Averting microglial M2 polarization by suppressing TRF4
	CXCL12	Promoting OPC differentiation Secreted by microglia
	Semaphorin 3F	Promoting OPC differentiation Improving OPC recruitment Secreted by microglia
	Activin-A	Promoting OPC differentiation Downstream activation of Rac-Cdc42 GTPases, Akt and mTOR Secreted by microglia
	Galectin-3	Promoting OPC differentiation Improving myelin integrity and function Secreted by microglia

Table S1. Molecules and their potential impact on remyelination in the central nervous system (CNS). Ab=antibody; SMI=small molecule inhibitor; SVZ=subventricular zone; SGZ=subgranular zone; MAPK=Mitogen-activated protein kinases; TAM= TYRO3, Axl and MerTK family of receptor tyrosine kinases (RTKs).