References

Allen SP, Hall B, Castelli LM, Francis L, Woof R, Siskos AP, Kouloura E, Gray E, Thompson AG, Talbot K, Higginbottom A, Myszczynska M, Allen CF, Stopford MJ, Hemingway J, Bauer CS, Webster CP, De Vos KJ, Turner MR, Keun HC, Hautbergue GM, Ferraiuolo L, Shaw PJ. Astrocyte adenosine deaminase loss increases motor neuron toxicity in amyotrophic lateral sclerosis. Brain. 2019 Mar 1;142(3):586-605. doi: 10.1093/brain/awy353. PMID: 30698736; PMCID: PMC6391613.

Kia A, McAvoy K, Krishnamurthy K, Trotti D, Pasinelli P. Astrocytes expressing ALS-linked mutant FUS induce motor neuron death through release of tumor necrosis factor-alpha. Glia. 2018 May;66(5):1016-1033. doi: 10.1002/glia.23298. Epub 2018 Jan 30. PMID: 29380416; PMCID: PMC5873384.

Izrael M, Slutsky SG, Revel M. Rising Stars: Astrocytes as a Therapeutic Target for ALS Disease. Front Neurosci. 2020 Jul 28;14:824. doi: 10.3389/fnins.2020.00824. PMID: 32848579; PMCID: PMC7399224.

Izrael, M., Slutsky, S., Admoni, T. et al. Safety and efficacy of human embryonic stem cell-derived astrocytes following intrathecal transplantation in $SOD1^{G93A}$ and NSG animal models. Stem Cell Res Ther 9, 152 (2018). https://doi.org/10.1186/s13287-018-0890-5

Madji Hounoum B, Mavel S, Coque E, Patin F, Vourc'h P, Marouillat S, Nadal-Desbarats L, Emond P, Corcia P, Andres CR, Raoul C, Blasco H. Wildtype motoneurons, ALS-Linked SOD1 mutation and glutamate profoundly modify astrocyte metabolism and lactate shuttling. Glia. 2017 Apr;65(4):592-605. doi: 10.1002/glia.23114. Epub 2017 Jan 31. PMID: 28139855.

Masrori P, Van Damme P. Amyotrophic lateral sclerosis: a clinical review. Eur J Neurol. 2020 Oct;27(10):1918-1929. doi: 10.1111/ene.14393. Epub 2020 Jul 7. PMID: 32526057; PMCID: PMC7540334.

Mehta P, Kaye W, Raymond J, Punjani R, Larson T, Cohen J, Muravov O, Horton K. Prevalence of Amyotrophic Lateral Sclerosis - United States, 2015. MMWR Morb Mortal Wkly Rep. 2018 Nov 23;67(46):1285-1289. doi: 10.15585/mmwr.mm6746a1. PMID: 30462626; PMCID: PMC6289079.

Miller RG, Mitchell JD, Moore DH. Riluzole for amyotrophic lateral sclerosis (ALS)/motor neuron disease (MND). Cochrane Database of Systematic Reviews 2012, Issue 3. Art. No.: CD001447. DOI: 10.1002/14651858.CD001447.pub3. Accessed 12 December 2024.

Rojas F, Cortes N, Abarzua S, Dyrda A, van Zundert B. Astrocytes expressing mutant SOD1 and TDP43 trigger motoneuron death that is mediated via sodium channels and nitroxidative stress. Front Cell Neurosci. 2014 Feb 7;8:24. doi: 10.3389/fncel.2014.00024. PMID: 24570655; PMCID: PMC3916762.

Sun, Z., Zhang, B. & Peng, Y. Development of novel treatments for amyotrophic lateral sclerosis. Metab Brain Dis 39, 467–482 (2024). https://doi.org/10.1007/s11011-023-01334-z

Taylor JP, et al. (2016). Decoding ALS pathophysiology: genetic and molecular insights. Nature Reviews Neurology.

Tripathi P, Rodriguez-Muela N, Klim JR, de Boer AS, Agrawal S, Sandoe J, Lopes CS, Ogliari KS, Williams LA, Shear M, Rubin LL, Eggan K, Zhou Q. Reactive Astrocytes Promote ALS-like Degeneration and Intracellular Protein Aggregation in Human Motor Neurons by Disrupting Autophagy through TGF-β1. Stem Cell Reports. 2017 Aug 8;9(2):667-680. doi: 10.1016/j.stemcr.2017.06.008. Epub 2017 Jul 14. PMID: 28712846; PMCID: PMC5549875.

Turner, M. R., et al. (2013). "Mechanisms of disease in ALS: insights from mouse models." Nature Reviews Neuroscience.

Rothstein, J. D., et al. (1995). "Selective loss of glial glutamate transporter EAAT2 in ALS." Annals of Neurology.

Philips, T., & Rothstein, J. D. (2014). "Glial cells in amyotrophic lateral sclerosis." Experimental Neurology.

Fischer, L. R., et al. (2004). "Axonal degeneration in ALS linked to mitochondrial abnormalities." Proceedings of the National Academy of Sciences USA.

Fischer, L. R., et al. (2011). "Aggregation and toxicity of misfolded SOD1 as determinants of disease onset and progression in a mouse model of ALS." The Journal of Neuroscience.

Yamanaka K, Boillee S, Roberts EA, Garcia ML, McAlonis-Downes M, Mikse OR, Cleveland DW, Goldstein LS. Mutant SOD1 in cell types other than motor neurons and oligodendrocytes accelerates onset of disease in ALS mice. Proc Natl Acad Sci U S A. 2008 May 27;105(21):7594-9. doi: 10.1073/pnas.0802556105. Epub 2008 May 20. PMID: 18492803; PMCID: PMC2396671.