

Table S2 | A summary of neural functions that are regulated by purinergic signalling.

Function	Reference
Calcium signalling astrocytes Schwann cells terminal (perisynaptic) Schwann cells oligodendrocytes optic nerve glia microglia	1–10 11–13 14–16 17–18 19 10, 20–24
Synaptic transmission sensory neurons motor neurons inhibitory interneurons CNS hippocampus retina neuromuscular junction stimulate neurotransmitter release inhibit neurotransmitter release	25, 26 27, 28 29 30 31–33 34, 35 36, 37 38–42 31, 33, 43, 44
Synaptic plasticity Long-term potentiation Long-term depression hypothalamic synapses neuromuscular junction hippocampus	40, 45–48 45, 49 50 14, 51 31, 33, 43, 44
Glial regulation of synaptic transmission hippocampus retina hypothalamus neuromuscular junction	45, 49 34, 35 50 14, 51, 52
Muscle contraction heart and blood vessel gut and bladder vas deferens skeletal muscle glial vascular interface	53 54, 27 55 37 56–58
Release of bioactive substances from glia excitatory neurotransmitters inhibitory neurotransmitters cytokines growth factors ATP and adenosine	59 60 61–65 66 8, 40, 45, 67–73
Nervous system development cell proliferation adult neural stem cells	13, 18, 59, 74, 75 76

differentiation myelination muscle development growth factors and receptors	77, 78 13, 18, 62 79, 80 13, 75, 77, 78, 81–86
Neuropathology astrogliosis apoptosis ischemia and hypoxia (neural protection) pain brain microcirculation inflammation response to neurotrauma cell morphology changes cell migration and chemotaxis anticonvulsive, anxiolytic, and depressant	85, 87–89 90, 91 (reviews) 92 (review), 93 56, 57, 94 58 64, 65, 95 63 22 23 96
Nervous system disease Parkinson's Alzheimer's epilepsy migraine cancer	96, 97 98 99, 100 56 90, 91 (review)
Non-neuronal cells and functions immune, platelets, macrophages, lymphocytes, mast cells, endocrine signaling, platelet aggregation, vasodilatation, nociception, cell death, wound healing, aging, cancer	90, 91, 101, 102 (reviews)

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