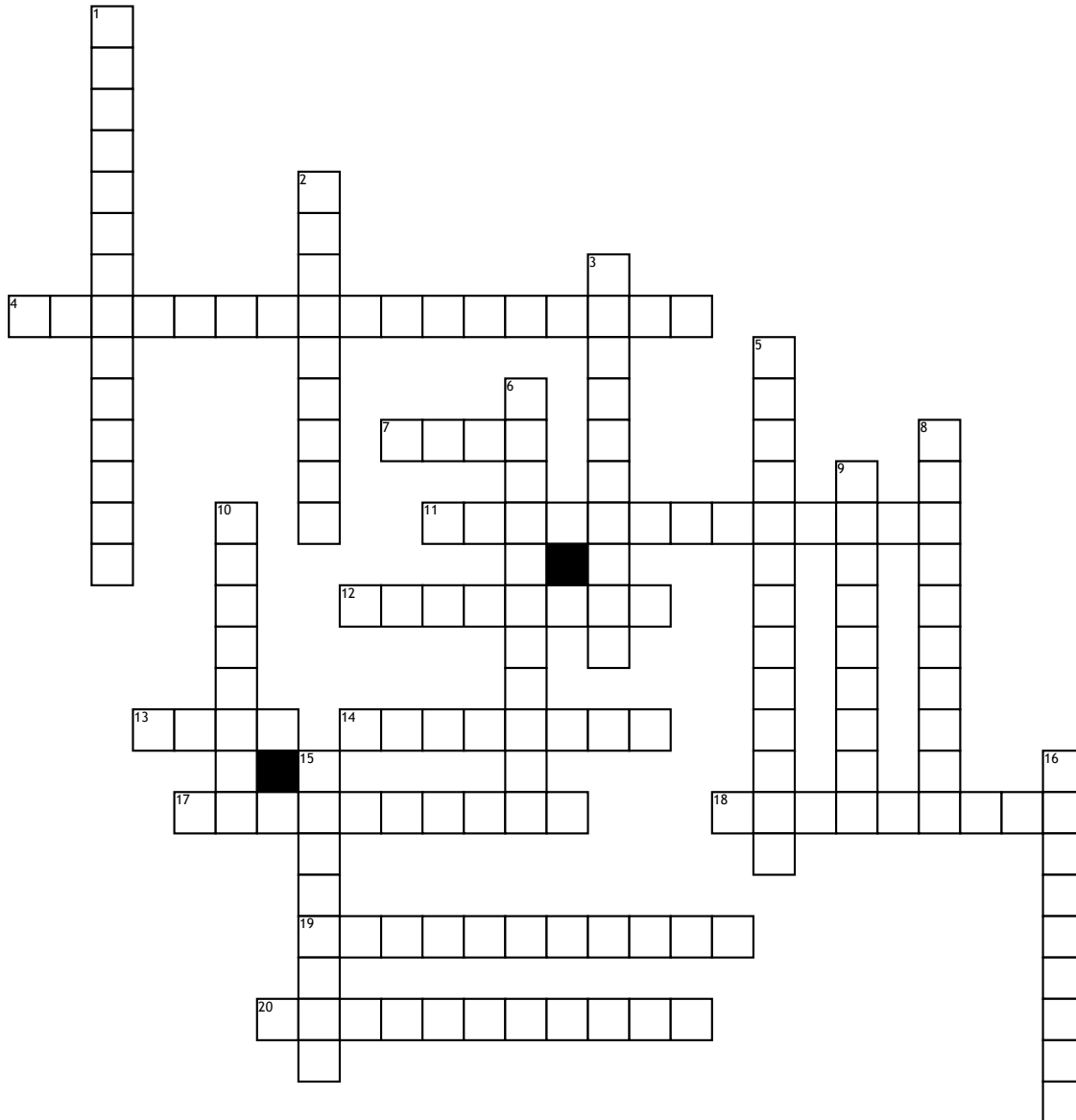


# Nervous System



**Across**

- 4. multiple sclerosis myelin sheath destruction. disruptions in nerve impulse conduction MS
- 7. A threadlike extension of a neuron that carries nerve impulses away from the cell body. long fiber that carries impulses away from the cell body of a neuron
- 11. enables muscle action, learning, and memory Common vertebrate neurotransmitter, especially in neuromuscular junctions.
- 12. three protective membranes that surround the brain and spinal cord three layers of membrane that cover the brain and spinal cord
- 13. glue cells found throughout the nervous system that provide various types of support for neurons
- 14. Branchlike parts of a neuron that are specialized to receive information. microscopic branching fiber of a nerve cell that is the first part to receive the nervous impulse

- 17. "morphine within"--natural, opiatelike neurotransmitters linked to pain control and to pleasure. Natural analgesics that decrease pain perception.
- 18. thick, outermost layer of the meninges surrounding and protecting the brain and spinal cord the thick, tough, outermost membrane of the meninges
- 19. a neuron that sends an impulse to a muscle or gland, causing the muscle or gland to react this carries information from the brain to the muscles; also called "efferent"
- 20. morphinelike neurotransmitters found in the brain and adrenals This chemical is released by injured tissues and is the most potent pain stimulus known.

**Down**

- 1. epinephrine and norepinephrine hormones derived from an amino acid and secreted by the adrenal medulla
- 2. cause responses that alter conditions in the internal environment muscles and glands

- 3. Provide structural and metabolic support for neurons. glial cells
- 5. accumulation of fluid in the spaces of the brain abnormal accumulation of fluid (CSF) in the brain
- 6. A neuron that is connected to other neurons, not to sense organs or muscles a neuron that transmits impulses between other neurons, especially as part of a reflex arc.
- 8. loss of feeling or sensation resulting from ether, chloroform, novocaine, etc. loss of sensation
- 9. Act as phagocytes, eating damaged cells and bacteria, act as the brains immune system phagocytic cells that ingest and break down waste products and pathogens in the CNS
- 10. A cluster of nerve cell bodies, often of similar function, located in the PNS. swelling
- 15. Important neurotransmitter in the CNS that acts on the sympathetic nervous system. Intropin
- 16. middle layer of the meninges delicate fibrous membrane forming the middle layer of the meninges