# Table of Contents

1. Introduction to the nervous system
2. Cells of the nervous system: neurons and glia
3. Developmental overview of neuroanatomy: the tube within the brain
4. The neuron at rest
5. Electrical communication within a neuron
6. Neurotransmitter release
7. Synthesis, packaging and termination of neurotransmitters
8. Receiving the synaptic message
9. Spinal cord: conduit between body and brain
10. Cranial nerves: Brain sentries
11. Brainstem organization
12. Inside the brainstem: Cranial nerve nuclei and long-distance connections
13. Forebrain: Action, perception, emotion, thought
14. Following the nutrients: blood supply, blood-brain barrier, and ventricles
15. Perceiving the world
16. Seeing the world
17. Audition: communication portal
18. Somatosensation: Focus on pain
19. The vestibular sense: balance and equilibrium
20. Motor control: From muscle contraction to action
21. The motor unit and orderly recruitment
22. Reflexes and gait
23. From movement to action: postural stability, orienting and praxis
24. Cerebellum
25. Basal ganglia: action selection
26. Gaze control
27. Homeostatic systems: Staying alive
28. The brain in a physician’s life

Index