

Contents

Preface

page xi

1 Structural organization of the nervous system	1
Nervous systems	1
The anatomy of a neuron	2
Non-myelinated nerve fibres	3
Myelinated nerve fibres	6
2 Resting and action potentials	11
Electrophysiological recording methods	11
Intracellular recording of the membrane potential	13
Extracellular recording of the nervous impulse	15
Excitation	19
3 The ionic permeability of the nerve membrane	25
Structure of the cell membrane	25
Distribution of ions in nerve and muscle	28
The genesis of the resting potential	31
The Donnan equilibrium system in muscle	33
The active transport of ions	34
4 Membrane permeability changes during excitation	41
The impedance change during the spike	41
The sodium hypothesis	41

Voltage-clamp experiments	47
Patch-clamp studies	57
5 Voltage-gated ion channels	59
cDNA sequencing studies	59
The primary structure of voltage-gated ion channels	61
The sodium gating current	64
The screw-helical mechanism of voltage-gating	66
The ionic selectivity of voltage-gated channels	69
6 Cable theory and saltatory conduction	73
The spread of potential changes in a cable system	73
Saltatory conduction in myelinated nerves	75
Factors affecting conduction velocity	81
Factors affecting the threshold for excitation	82
After-potentials	84
7 Neuromuscular transmission	86
The neuromuscular junction	86
Chemical transmission	87
Postsynaptic responses	89
Presynaptic events	99
8 Synaptic transmission in the nervous system	103
Synaptic excitation in motoneurons	104
Inhibition in motoneurons	107
Slow synaptic potentials	110
Electrotonic synapses	115
9 Skeletal muscles	118
Anatomy	118
Mechanical properties	120
Energetics of contraction	127
Muscular exercise	132
10 The mechanism of contraction in skeletal muscle	136
Excitation-contraction coupling	136
The structure of the myofibril	143
The sliding filament theory	146
The molecular basis of contraction	149

11 Non-skeletal muscles	156
Cardiac muscle	156
Smooth muscle	164
Further reading	168
References	169
Index	175

People are judged by their actions, and their actions are determined by nerve cells and related not by muscle cells. For an understanding of nerve and muscle it is fundamental to our knowledge of how the human body functions.

This book provides an introductory account of how nerve and muscle cells work, suitable for students taking university courses in physiology, cell biology, anatomical medicine. It aims to give a straightforward exposure to the concepts of the subject, including particularly some of the experimental evidence upon which our conclusions are based. This edition includes new material reflecting the growing discoveries that continue to be made in the field. There is again a detailed chapter on the ion channels involved in electrical activity and the molecular mechanisms of excitation-contraction.

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