

# 目 录

## 神经肌肉接头与间隙连接

|                                                                                                           |     |
|-----------------------------------------------------------------------------------------------------------|-----|
| Autonomic Neuroeffector Junction.....                                                                     | 3   |
| Botulinum and Tetanus Toxins.....                                                                         | 12  |
| Comparative Biology of Invertebrate Neuromuscular Junctions.....                                          | 18  |
| Development of Drosophila Neuromuscular Junctions.....                                                    | 43  |
| Gap Junction Abnormalities and Disorders of the Nervous System.....                                       | 52  |
| Gap Junction Communication.....                                                                           | 58  |
| Gap Junctions and Electrical Synapses.....                                                                | 63  |
| Gap Junctions and Hemichannels in Glia.....                                                               | 83  |
| Gap Junctions and Neuronal Oscillations.....                                                              | 89  |
| Gap Junctions: Metabolic Exchanges.....                                                                   | 96  |
| Magnocellular Neurosecretory System: Organization, Plasticity, Model Peptidergic Neurons.....             | 104 |
| Neuromuscular Connections: Vertebrate Patterns of.....                                                    | 115 |
| Neuromuscular Junction (NMJ): A Target for Natural and Environmental Toxins in Humans.....                | 124 |
| Neuromuscular Junction (NMJ): Acetylcholinesterases.....                                                  | 135 |
| Neuromuscular Junction (NMJ): Activity-Dependent Muscle Fiber Modulation.....                             | 143 |
| Neuromuscular Junction (NMJ): Aging.....                                                                  | 153 |
| Neuromuscular Junction (NMJ): Inherited and Acquired Disorders.....                                       | 158 |
| Neuromuscular Junction (NMJ): Mammalian Development.....                                                  | 167 |
| Neuromuscular Junction (NMJ): Postsynaptic Basal Lamina.....                                              | 176 |
| Neuromuscular Junction (NMJ): Postsynaptic Events in Neuromuscular Transmission.....                      | 182 |
| Neuromuscular Junction (NMJ): Presynaptic Non-Quantal Release of Transmitter.....                         | 191 |
| Neuromuscular Junction (NMJ): Presynaptic Schwann Cells and Modulation of Neuromuscular Transmission..... | 198 |
| Neuromuscular Junction (NMJ): Presynaptic Short-Term Plasticity of Neuromuscular Transmission.....        | 207 |
| Neuromuscular Junction (NMJ): Presynaptic Stretch Effects on Neuromuscular Transmission.....              | 213 |
| Neuromuscular Junction Plasticity in Mammals and Botulinum Toxins.....                                    | 219 |
| Neuromuscular Junction: Neuronal Regulation of Gene Transcription at the Vertebrate.....                  | 230 |

|                                                                                     |     |
|-------------------------------------------------------------------------------------|-----|
| Neuromuscular Junction: Synapse Elimination .....                                   | 239 |
| Neuromuscular Transmission Modulation at Invertebrate Neuromuscular Junctions ..... | 247 |
| Presynaptic Events in Neuromuscular Transmission .....                              | 267 |
| Presynaptic: Mitochondria and Presynaptic Function .....                            | 277 |
| Schwann Cells and Plasticity of the Neuromuscular Junction .....                    | 288 |

## 神经药理学

|                                                                                                   |     |
|---------------------------------------------------------------------------------------------------|-----|
| AMPA Receptors: Molecular Biology and Pharmacology .....                                          | 297 |
| Cognition: Neuropharmacology .....                                                                | 305 |
| Drug Addiction: Behavioral Pharmacology of Drug Addiction in Rats .....                           | 313 |
| Drugs Addiction: Actions .....                                                                    | 321 |
| Exercise: Optimizing Function and Survival at the Cellular Level .....                            | 325 |
| Metabotropic Glutamate Receptors (mGluRs): Molecular Biology, Pharmacology and Cell Biology ..... | 331 |
| Neuropeptide Receptors-Drug Development .....                                                     | 341 |
| Pharmacology of Sleep: Adenosine .....                                                            | 351 |

## 突触结构

|                                                                          |     |
|--------------------------------------------------------------------------|-----|
| Active Zone .....                                                        | 363 |
| Activity-Dependent Remodeling of Presynaptic Boutons .....               | 370 |
| Adenosine Receptor Mediated Functions .....                              | 378 |
| Cadherins and Synapse Organization .....                                 | 385 |
| Cell Adhesion Molecules at Synapses .....                                | 393 |
| Dendritic Spine History .....                                            | 401 |
| Endocytic Traffic in Spines .....                                        | 406 |
| Endocytosis and Presynaptic Scaffolds .....                              | 410 |
| Eph Receptor Signaling and Spine Morphology .....                        | 422 |
| Glia and Synapse Formation: An Overview .....                            | 427 |
| Glutamate Receptor Organization: Ultrastructural Insights .....          | 433 |
| LIM Kinase and Actin Regulation of Spines .....                          | 437 |
| Neural Cell Adhesion Molecules and Synapse Regulation .....              | 443 |
| Postsynaptic Density/Architecture at Excitatory Synapses .....           | 449 |
| Postsynaptic Specialization Assembly .....                               | 456 |
| Presynaptic Development: Functional and Morphological Organization ..... | 463 |
| Presynaptic Endosomes .....                                              | 471 |
| Presynaptic Receptor Signaling .....                                     | 476 |
| Presynaptic Regulation by Liprins .....                                  | 485 |
| Rho GTPases and Spines .....                                             | 492 |

|                                                                                     |     |
|-------------------------------------------------------------------------------------|-----|
| Neuromuscular Junction: Synapse Elimination .....                                   | 239 |
| Neuromuscular Transmission Modulation at Invertebrate Neuromuscular Junctions ..... | 247 |
| Presynaptic Events in Neuromuscular Transmission .....                              | 267 |
| Presynaptic: Mitochondria and Presynaptic Function .....                            | 277 |
| Schwann Cells and Plasticity of the Neuromuscular Junction .....                    | 288 |

## 神经药理学

|                                                                                                   |     |
|---------------------------------------------------------------------------------------------------|-----|
| AMPA Receptors: Molecular Biology and Pharmacology .....                                          | 297 |
| Cognition: Neuropharmacology .....                                                                | 305 |
| Drug Addiction: Behavioral Pharmacology of Drug Addiction in Rats .....                           | 313 |
| Drugs Addiction: Actions .....                                                                    | 321 |
| Exercise: Optimizing Function and Survival at the Cellular Level .....                            | 325 |
| Metabotropic Glutamate Receptors (mGluRs): Molecular Biology, Pharmacology and Cell Biology ..... | 331 |
| Neuropeptide Receptors-Drug Development .....                                                     | 341 |
| Pharmacology of Sleep: Adenosine .....                                                            | 351 |

## 突触结构

|                                                                          |     |
|--------------------------------------------------------------------------|-----|
| Active Zone .....                                                        | 363 |
| Activity-Dependent Remodeling of Presynaptic Boutons .....               | 370 |
| Adenosine Receptor Mediated Functions .....                              | 378 |
| Cadherins and Synapse Organization .....                                 | 385 |
| Cell Adhesion Molecules at Synapses .....                                | 393 |
| Dendritic Spine History .....                                            | 401 |
| Endocytic Traffic in Spines .....                                        | 406 |
| Endocytosis and Presynaptic Scaffolds .....                              | 410 |
| Eph Receptor Signaling and Spine Morphology .....                        | 422 |
| Glia and Synapse Formation: An Overview .....                            | 427 |
| Glutamate Receptor Organization: Ultrastructural Insights .....          | 433 |
| LIM Kinase and Actin Regulation of Spines .....                          | 437 |
| Neural Cell Adhesion Molecules and Synapse Regulation .....              | 443 |
| Postsynaptic Density/Architecture at Excitatory Synapses .....           | 449 |
| Postsynaptic Specialization Assembly .....                               | 456 |
| Presynaptic Development: Functional and Morphological Organization ..... | 463 |
| Presynaptic Endosomes .....                                              | 471 |
| Presynaptic Receptor Signaling .....                                     | 476 |
| Presynaptic Regulation by Liprins .....                                  | 485 |
| Rho GTPases and Spines .....                                             | 492 |

|                                                                                          |            |
|------------------------------------------------------------------------------------------|------------|
| <b>Ribbon Synapses.....</b>                                                              | <b>500</b> |
| <b>RNA Granules: Functions within Presynaptic Terminals and Postsynaptic Spines.....</b> | <b>509</b> |
| <b>Spine Plasticity.....</b>                                                             | <b>516</b> |
| <b>Spines and Mental Disorders.....</b>                                                  | <b>523</b> |
| <b>Synapsins and Regulation of the Reserve Pool .....</b>                                | <b>530</b> |
| <b>Synaptic Capture and Tagging .....</b>                                                | <b>539</b> |
| <b>Synaptic Plasticity: Short-Term Mechanisms.....</b>                                   | <b>544</b> |
| <b>Translational Regulation at the Synapse.....</b>                                      | <b>550</b> |
| <b>Ultrastructural Analysis of Spine Plasticity .....</b>                                | <b>555</b> |
| <b>Ultrastructural Organization of Release Sites in the Calyx of Held .....</b>          | <b>562</b> |
| <b>原书词条中英对照表.....</b>                                                                    | <b>569</b> |