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| Collana | Handbook of Experimental Pharmacology, , 0171-2004 ; ; 221 |
| Disciplina | 612.014 |
| Soggetti | Pharmacology<br>Neurosciences<br>Cardiology<br>Cell membranes<br>Proteins<br>Pharmacology/Toxicology<br>Membrane Biology<br>Protein Structure |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references at the end of each chapters and index. |
| Nota di contenuto | Overview: biophysical properties and structure of sodium channels. - The voltage sensor module in sodium channels -- Slow inactivation of Na+ channels -- Regulation/modulation of sensory neuron sodium channels -- Ubiquitylation of voltage-gated sodium channels -- Probing gating mechanisms of sodium channel using pore blockers -- Animal toxins influence voltage-gated sodium channel function -- Voltage-sensor trapping toxins: Iso form-specific ligands for sodium channels -- Pharmacological insights and quirks of bacterial sodium channels -- The role of non-pore-forming  subunits in physiology and pathophysiology of voltage-gated sodium channels -- The role of late INa in development of cardiac arrhythmias -- Proton modulation of cardiac INa: A potential arrhythmogenic trigger -- Altered sodium channel gating as molecular basis for pain: Contribution of activation, inactivation and resurgent currents. . |
| Sommario/riassunto | A number of techniques to study ion channels have been developed |

since the electrical basis of excitability was first discovered. Ion channel biophysicists have at their disposal a rich and ever-growing array of instruments and reagents to explore the biophysical and structural basis of sodium channel behavior. Armed with these tools, researchers have made increasingly dramatic discoveries about sodium channels, culminating most recently in crystal structures of voltage-gated sodium channels from bacteria. These structures, along with those from other channels, give unprecedented insight into the structural basis of sodium channel function. This volume of the Handbook of Experimental Pharmacology will explore sodium channels from the perspectives of their biophysical behavior, their structure, the drugs and toxins with which they are known to interact, acquired and inherited diseases that affect sodium channels and the techniques with which their biophysical and structural properties are studied.