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Discussion; Structural determinants for high-affinity block of hERG potassium channels; Discussion; Physicochemical basis for binding and voltage-dependent block of hERG channels by structurally diverse drugs; Discussion; In silico modelling-pharmacophores and hERG channel models; Discussion; The long QTsyndrome: a clinical counterpart of HERG mutations; Discussion; Cellular mechanisms of Torsade de Pointes; Discussion
Expression and role of hERG channels in cancer cellsDiscussion; TRIad: foundation for proarrhythmia (triangulation, reverse use dependence and instability); Discussion; Drug-induced QT interval prolongation: regulatory guidance and perspectives on hERG channel studies; Discussion; Closing remarks; Index of contributors; Subject index

Sommario/riassunto

This book draws together contributions from basic, pharmaceutical and clinical sciences aimed at a better understanding of the structure and function of hERG and the molecular basis for compound binding. It features regulatory authority perspectives on preferred preclinical test systems and includes topics on hERG channel gating, regulation of functional expression, pharmacological properties of hERG/IKr channels, drug-induced long QT syndrome and preclinical evaluation and regulatory recommendations for assessing QT prolongation risks. Better understanding of the role of the hERG channe