Record Nr. UNINA9910876807403321 The hERG cardial potassium channel: structure, function, and long QT **Titolo** syndrome / / [editors, Derek J. Chadwick, James Goode] Pubbl/distr/stampa New York, : J. Wiley, 2005 **ISBN** 1-280-27526-X 9786610275267 0-470-02142-X 0-470-02141-1 Descrizione fisica 1 online resource (309 p.) Collana Novartis Foundation symposium;; 266 ChadwickDerek Altri autori (Persone) GoodeJamie Disciplina 612.1/7 Soggetti Potassium channels Long QT syndrome Heart - Physiology Heart - Pathophysiology

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Nota di contenuto THE hERG CARDIAC POTASSIUM CHANNEL: STRUCTURE, FUNCTION AND

LONG QT SYNDROME; Contents; Participants; Chair's introduction; Gating and assembly of heteromeric hERG1a/1b channels underlying I (Kr) in the heart; Discussion; Structure-function studies of the outer mouth and voltage sensor domain of hERG; Discussion; General discussion I; Voltage sensor movement in the hERGK(+) channel; Discussion; hERG channel trafficking; Discussion; Dynamic control of hERG/I(Kr) by PKA-mediated interactions with 14-3-3; Discussion;

General discussion II

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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