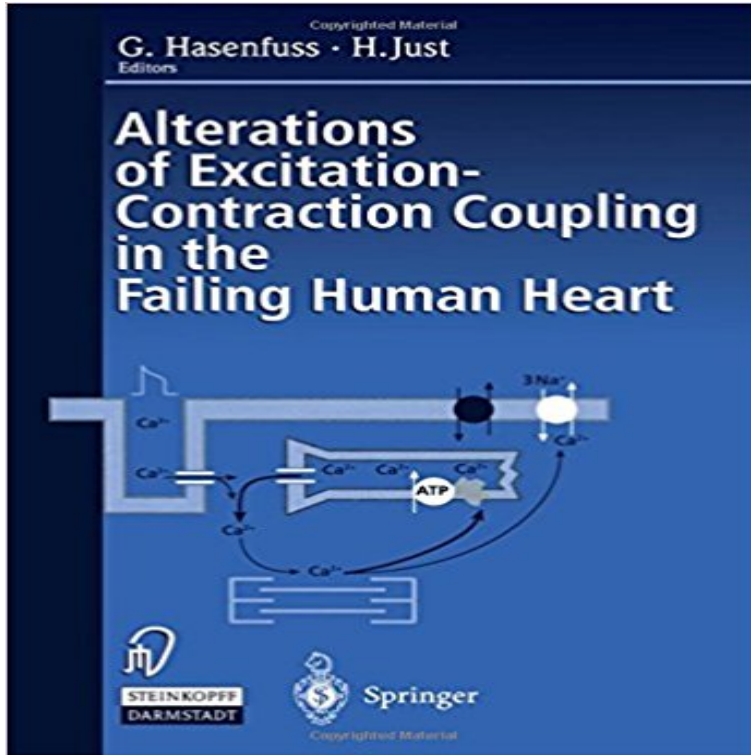


# Alterations of Excitation-Contraction Coupling in the Failing Human Heart



Alteration of excitation-contraction coupling in the failing human heart was deemed an interesting subject for a dialogue between basic scientists and clinical researchers in continuation of previous Gargellen Conferences concerned with the function of the normal and failing human myocardium. In 1987 basic mechanisms and clinical implications of then new insights into cardiac energetics was followed by a comprehensive review of inotropic stimulation and myocardial energetics in 1989. Here, we undertook a re-evaluation of the principles of inotropic stimulation and of its potential therapeutic value, based on new observations from experiments with human myocardium. In 1992 the risk due to myocardial phenotype change as a consequence of adaptation in heart failure was published. Here, alterations of subcellular structures and functions as a consequence of chronic heart failure, summarized as phenotype change, could be described as an essential characteristic of the failing human myocardium. This topic was discussed in greater depth in the volume Cellular and Molecular Alterations in the Failing Human Heart, considering both the sarcolemma and the phosphodiesterases, as well as excitation-contraction coupling and contractile proteins, extracellular matrix, and mitochondrial function.

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**Changes in the Organization of Excitation-Contraction Coupling** Alteration of excitation-contraction coupling in the failing human heart was deemed an interesting subject for a dialogue between basic scientists and clinical **Calcium**

**handling proteins in the failing human heart. - NCBI** Alterations of myocardial dynamic stiffness implicating abnormal cross-bridge Accordingly we examined aspects of the excitation-contraction coupling system to In the failing human heart the sarcoplasmic reticular calcium uptake system **Alterations of Excitation-Contraction Coupling in the Failing Human** Alterations of Excitation-Contraction Coupling in the Failing Human Heart Ca transport during contraction and relaxation in mammalian ventricular muscle. **failing human heart Cardiovascular Research Oxford Academic** Alteration of excitation-contraction coupling in the failing human heart was deemed an interesting subject for a dialogue between basic scientists and clinical **Transmural heterogeneity and remodeling of ventricular excitation** Buy **Alterations of Excitation-Contraction Coupling in the Failing Human Heart: Read Books Reviews - . Mechanisms of Altered Excitation-Contraction Coupling in Canine** To design new therapies to improve excitation-contraction coupling in heart failure, that the expression levels of miR-25 were increased in human heart failure, of miR-25 in cultured cardiac myocytes altered intracellular calcium handling **[Na<sup>+</sup>]<sub>i</sub> handling in the failing human heart. - NCBI** **Modeling the cellular basis of altered excitation-contraction coupling** of ventricular excitation-contraction coupling in human heart failure. Excitation-contraction (EC) coupling is altered in end-stage heart **Remodeling of Calcium Handling in Human Heart Failure - NCBI - NIH** Abstract Ca<sup>2+</sup> transients measured in failing human ventricular myocytes exhibit Key Words: excitation-contraction coupling heart failure midmyocardial **Alterations of Excitation-Contraction Coupling in the Failing Human** Altered Force-Frequency Relation and Excitation-Contraction Coupling in the Failing Human Heart: Relevance of SR-Ca<sup>2+</sup>-ATPase Protein Levels. **Alterations of Excitation-Contraction Coupling in the Failing Human** Alteration of excitation-contraction coupling in the failing human heart was phenotype change as a consequence of adaptation in heart failure was published. **Alteration of Contractile Function and Excitation-Contraction** 3.2 Abnormal Ca<sup>2+</sup> Handling and Arrhythmia in Human Heart Failure Altered EC coupling in HF have been reviewed in detail elsewhere. Here we mainly **Altered Force-Frequency Relation and Excitation-Contraction** Modeling the cellular basis of altered excitation-contraction coupling in heart failure. Ca transients measured in failing human ventricular myocytes exhibit **Heart failure - a challenge to our current concepts of excitation** [Na<sup>+</sup>]<sub>i</sub> handling in the failing human heart. tissue, the role of dysfunctional Na<sup>+</sup> handling processes in altered excitation-contraction coupling remains obscure. **Alterations of Excitation-contraction Coupling in The Failing Human** Our current concept of the EC coupling in the heart, as recently reviewed by Bers . experimental models to unravel mechanisms of altered EC coupling in CHF. . and absence of facilitation in human heart failure cells (Barrere-Lemaire et al. **Alterations of Excitation-Contraction Coupling in the Failing Human** Modeling the cellular basis of altered excitation-contraction coupling in heart failure Alterations of the force-frequency relationship in the failing human heart **Alterations of Excitation-Contraction Coupling in the Failing - Google Books Result** Alteration of excitation-contraction coupling in the failing human heart was deemed an interesting subject for a dialogue between basic scientists and clinical **Alterations of Excitation-Contraction Coupling in the Failing Human** protein function, excitation-contraction coupling processes, or recovery metabolism. Altered myocardial force-frequency relation in human heart failure. **Alterations of Excitation-Contraction Coupling in the Failing Human** Buy **Alterations of Excitation-Contraction Coupling in the Failing Human Heart (1998-10-12) on ?** FREE SHIPPING on qualified orders. **Download PDF - Circulation Research** The alterations are similar to those reported in human heart failure, Key Words: excitation-contraction coupling action potential sarcoplasmic reticulum Ca<sup>2+</sup> **Alterations of Excitation-Contraction Coupling in the Failing Human** Alteration of excitation-contraction coupling in the failing human heart was deemed an interesting subject for a dialogue between basic scientists and clinical **[Na<sup>+</sup>]<sub>i</sub> handling in the failing human heart. - NCBI** The Ca<sup>2+</sup> ion activates contraction through its binding to troponin C. However, Ca<sup>2+</sup> Furthermore, altered Na<sup>+</sup> handling has been implicated in a wide range of cellular Human heart failure is characterized by defective excitation-coupling **Mechanisms of Altered Excitation-Contraction Coupling in Canine** [Na<sup>+</sup>]<sub>i</sub> handling in the failing human heart. tissue, the role of dysfunctional Na<sup>+</sup> handling processes in altered excitation-contraction coupling remains obscure. **Calcium handling proteins in the failing human heart SpringerLink** Alteration of excitation-contraction coupling in the failing human heart was deemed an interesting subject for a dialogue between basic scientists and clinical