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Nota di contenuto	Transduction Channels in Sensory Cells; Table of Contents; Preface; List of Contributers; 1 The Molecular Basis of Touch Sensation as Modeled in Caenorhabditis elegans; Abstract; 1.1 Introduction; 1.2 Features of the C. elegans Model System; 1.3 Mechanosensation Is a Major Mechanism by Which C. elegans Senses Its Environment; 1.4 Gentle Body Touch; 1.4.1 The Touch Receptor Neurons; 1.4.2 Ultrastructural Features of the Touch Receptor Neurons; 1.4.2.1 Touch Cell-specific Microtubules; 1.4.2.2 The Extracellular Mantle; 1.4.3 Genetic and Molecular Analysis of Body Touch 1.4.3.1 mec-4 and mec-10 Ion Channel Subunits Form Na(+) Channels1.4.3.2 MEC-4 at the Molecular Level; 1.4.4 The Candidate Mechanotransducing Channel is a Heteromultimeric Complex; 1.4.4.1 MEC-4 and MEC-10 Form a Functional Ion Channel; 1.4.4.2 MEC-2 Is a Stomatin-like Protein That May Help Tether the MEC-4/MEC-10 Channel to the Membrane Bilayer and/or the Cytoskeleton; 1.4.4.3 MEC-6 Is a Transmembrane Paraoxonase-like Protein That Controls

Sommario/riassunto

This is the first book to provide a molecular level explanation of how the senses work, linking molecular biology with sensory physiology to deduce the molecular mechanism of a key step in sensory signal generation. The editors have assembled expert authors from all fields of sensory physiology for an authoritative overview of the mechanisms of sensory signal transduction in both animals and plants. They systematically cover phototransduction, chemosensory transduction, mechanotransduction, temperature and pain perception, as well as specialized receptors for electrical and magnetic signals.