

# Connective Tissue

## *Histophysiology, Biochemistry, Molecular Biology*

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This book brings together crucial knowledge of mammalian connective tissue (including human) and its components, both cellular and noncellular, in one authoritative reference. The breadth and depth of information has fundamental scientific significance as well as applied relevance in clinical medicine. The first half of the book covers the structure, classification, biochemical aspects, histogenesis, and cellular elements of connective tissue. The second half of the book reviews current data on the biochemistry and molecular biology of skeletal connective tissue, including bone and cartilage metabolism and regulation.

### KEY FEATURES

- Covers all types of connective tissues—fibrous connective tissue, adipose tissue, bone, and cartilage
- Features all basic information on the structural organization, functions, and metabolism of all the components of connective tissue
- Employs new methods of microscopy to visualize different tissues at different levels of magnification
- Introduces new clinical approaches for stimulating connective tissue regeneration
- Presents previously unpublished morphological research (SEM and TEM) on the nanostructural organization of bone minerals, tooth minerals, and mineralized cartilage in comparison with that of a coral and a seashell
- Includes 350 informative, high-quality micrographs and diagrams
- Evaluates data on qualitative and quantitative changes in the structure and metabolism of different kinds of connective tissues in all stages of ontogenesis

### SELECTED CONTENTS

Peculiarities of Connective Tissue Histophysiology, Biochemistry, and Molecular Biology. Cellular Elements of Connective Tissue. Extracellular Matrix of Connective Tissue: Biochemistry and Histophysiology. Regulation of Connective Tissue Metabolic Functions. Biochemical and Molecular Biological Mechanisms and Manifestations of Connective Tissue Ageing. Bone – An Organ of the Support and Locomotor Apparatus Containing All Types of Connective Tissue. Cartilage – Cartilaginous Tissue: Structural, Biochemical and Molecular Biological Characteristics. Bone Tissue: The Structural-Functional, Biochemical and Molecular Biological Characteristics of Its Components. Biochemical Characteristics of Synovial Membrane and Synovia. Molecular Biological and Biochemical Regularities of Connective Tissue Structures Ontogenesis. References. List Abbreviations.

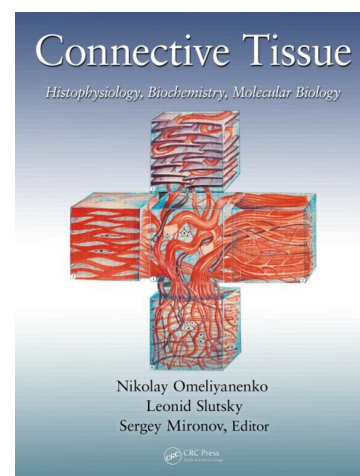
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