

1. Record Nr.	UNINA9910455582403321
Titolo	The growth plate [[electronic resource] /] / edited by Irving M. Shapiro, Barbara Boyan, H. Clarke Anderson
Pubbl/distr/stampa	Amsterdam ; ; Washington, DC, : IOS Press, c2002
ISBN	9786610505449 600-00-0579-2 1-280-50544-3 1-60129-467-0
Descrizione fisica	1 online resource (276 p.)
Collana	Biomedical and health research ; ; v. 54
Altri autori (Persone)	ShapiroIrving M BoyanBarbara AndersonH. Clarke
Disciplina	571.8
Soggetti	Bone cells Cartilage cells Bones - Growth Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	<p>""Cover""; ""Title page""; ""Preface""; ""Dedication""; ""Sponsors""; ""Contents""; ""Chapter 1: Indian Hedgehog and Retinoids Orchestrate Multiple Growth Plate Functions in Developing Long Bones: The Growth Plate as a Highly Interactive Structure""; ""Chapter 2: Involvement of Cbfal in Chondrocyte Differentiation Maturation, Endochondral Ossification, and the Specification of the Cartilage Phenotype""; ""Chapter 3: Cell Maturation Specific Regulation of the PKC Signaling Pathway by I, 25-(OH)[sub(2)]D[sub(3)] and 24R, 25-(OH)[sub(2)]D[sub(3)] in Growth Plate Chondrocytes"" ""Chapter 4: Regulation of Chondrogenesis and Cartilage Maturation In Vitro: Role of TGF-1, Thyroid Hormone, and Wnt Signaling""""Chapter 5: Local Production of Estradiol by Growth Plate Chondrocytes and its Gender-Specific Membrane Mediated Effects""; ""Chapter 6: Components of the Cartilage Extracellular Matrix Regulate Chondrocyte Apoptosis""; ""Chapter 7: The Release and Activation of TGF-2</p>

Associated with Chondrocyte Hypertrophy and Apoptosis"; "Chapter 8: Cell Death and Transdifferentiation in the Growth Plate"
"Chapter 9: Matrix Vesicles Contain Metalloproteinases that Are Released into the Matrix by Treatment with 1,25(OH)₂D₃ and Are Capable of Activating Latent Transforming Growth Factor-1"
"Chapter 10: Mechanisms that Regulate Normal Bone Mineral Deposition: A Hypothesis on the Role of Antagonistic Pathways in Preventing Hypo- and Hyper-Mineralization"; "Chapter 11: In Vitro Differentiation and Matrix Vesicle Biogenesis in Primary Cultures of Rat Growth Plate Chondrocytes"; "Chapter 12: Growth Plate Proteins and Biominerization"
"Chapter 13: Regulated Production of Mineralization-Competent Matrix Vesicles by Terminally Differentiated Chondrocytes"
"Chapter 14: Linking Endochondral Ossification to Hematopoiesis"; "Chapter 15: Fibroblast Growth Factor Receptor (FGFR) Mutations in Achondroplasia and Related Skeletal Dysplasias"; "Chapter 16: Fibrodysplasia Ossificans Progressiva: Evolving Insights from a Rare Disease"; "Chapter 17: Matrix Vesicle Misfunction in Human Hypophosphatasia"; "Chapter 18: Tibial Dyschondroplasia: A Growth Plate Abnormality Caused by Delayed Terminal Differentiation"
"Chapter 19: RUNX2/CBFA1 Mutations in Cleidocranial Dysplasia: Phenotypic and Structure/Function Correlations"
"Chapter 20: BMP-Regulated Chondrocyte Hypertrophy"; "Chapter 21: Dual Roles of the Wnt Antagonist, Frzb-1 in Cartilage Development"; "Chapter 22: Chondrocyte Kinetics in the Growth Plate"; "Chapter 23: Localization of Bone Morphogenetic Proteins and their Intercellular Signaling Components (Smads) in the Growth Plate"; "Author Index"; "A"; "B"; "C"; "D"; "E"; "F"; "G"; "H"; "I"; "J"; "K"; "L"; "M"; "N"; "P"; "R"; "S"; "T"; "U"; "W"; "Y"

Sommario/riassunto

Evidence generated by a number of genetic studies indicates that growth is regulated by a number of genes and that interference with their expression can have catastrophic effects on the well being of the whole organism. With the realization that multiple regulatory pathways exist, work is now focusing on identification of those signals that control the activity of the cells in the epiphyseal growth plate. A group of individuals included dental and orthopaedic researchers examining the regulation of craniofacial growth and mineralization. The molecular biologists are probing skeletal morphoge
