

1. Record Nr.	UNINA9910300333603321
Titolo	The Intervertebral Disc : Molecular and Structural Studies of the Disc in Health and Disease / / edited by Irving M. Shapiro, Makarand V. Risbud
Pubbl/distr/stampa	Vienna : , : Springer Vienna : , : Imprint : Springer, , 2014
ISBN	3-7091-1535-3
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (440 p.)
Disciplina	617.5 617.5/6 617.56
Soggetti	Orthopedics Neurosurgery Surgical Orthopedics
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	Biomechanical and Molecular Studies of the Intervertebral Disc: Introduction to the Structure, Function and Comparative Anatomy of the Vertebrae and the Intervertebral Disc -- The Intervertebral Disc: Overview of Disc Mechanics -- Development of the Intervertebral Disc -- Proteoglycans of the Intervertebral Disc -- Collagen and Other Proteins of the Nucleus Pulposus, Annulus Fibrosus and Cartilage Endplates -- Microenvironmental Regulation of Cell Function and Extracellular Matrix Synthesis by Disc Cells -- The Effects of Mechanical Forces on Nucleus and Annulus Cells -- The Role of the ADAMTS Proteins in the Intervertebral Disc -- Intervertebral Disc Disease: Pathogenesis and Current Treatment Modalities: Epidemiology of Lumbar Disc Degeneration -- Genetic Basis of Intervertebral Disc Degeneration -- Pathogenesis of Intervertebral Disc Degeneration -- Imaging Modalities for Studying Disc Pathology -- Surgical Indications for Lumbar Degenerative Disease -- Spinal Motion Restoration Devices for the Degenerate Disc -- The Non-Surgical Treatment of Back Pain -- Back Pain and Disc Degeneration: Are They Linked?- Clinical Features and Pathobiology of Chordoma -- Models of Disc Disease and Biological Regeneration: Large Animal Models of Disc Degeneration --

Intervertebral Disc Herniation -- The Sand Rat (*Psammomys obesus*) Model of Spontaneous, Age-Related Intervertebral Disc Generation -- Use of Knockout and Transgenic Mouse Models in Disc Research -- Intervertebral Disc Culture Models and Their Applications to Study Pathogenesis and Repair -- Use of Stem Cells to Regenerate the Disc -- Gene Therapy Approaches for Disc Regeneration -- Enhancing Disc Repair by Growth Factors and Other Modalities -- Tissue Engineering of the Disc.

Sommario/riassunto

The intervertebral disc is composed of a complex tissue that separates neighboring vertebrae, permits a wide range of motion, and cushions the high biomechanical forces on the spine. Disc degeneration leads to a loss of function and is often associated with excruciating pain. Written by leading scientists and clinicians, this is the only book in the past fifty years devoted entirely to the study of the intervertebral disc. The first part of the book provides a review of the basic biology of the disc in health and disease. The second part considers strategies for mitigating the effects of disc degeneration and discusses the possibility of engineering replacement tissues. The final section is dedicated to approaches that model normal development, and the elucidation of the pathogenesis of degenerative disc disease using animal, organ and cell culture techniques. This unique and authoritative book bridges the gap between the basic and clinical sciences; its target audience includes basic scientists, orthopedists, neurologists, rehabilitation and physical therapists, primary care physicians and chiropractors, while it also addresses the needs of graduate students, medical students, interns, fellows, and patients who suffer from disc-related pathologies.

2. Record Nr.	UNINA9910138801403321
Titolo	Journal of learning spaces
Pubbl/distr/stampa	Greensboro, NC : , : University Libraries, University of North Carolina at Greensboro
Descrizione fisica	1 online resource
Disciplina	371
Soggetti	Study environment Classrooms - Design School environment Information commons Instructional materials centers Distance education Learning Periodicals.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Periodico
Note generali	Refereed/Peer-reviewed