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| Autore                  | Chadwick Derek  |
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| ISBN                    | 1-280-27638-X<br>9786610276387<br>0-470-09376-5<br>0-470-09374-9  |
| Descrizione fisica      | 1 online resource (302 p.)  |
| Collana                 | Novartis Foundation symposium ; ; 264   |
| Altri autori (Persone)  | GoodeJamie  |
| Disciplina              | 571.936<br>571.9366   |
| Soggetti                | Cell nuclei<br>Cell nuclei - Abnormalities<br>Developmental cytology  |
| 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       | NUCLEAR ORGANIZATION IN DEVELOPMENT AND DISEASE; Contents; Participants; Chair's introduction; Nuclear lamins: building blocks of nuclear structure and function; Discussion; Aspects of nuclear envelope dynamics in mitotic cells; Discussion; Components of the nuclear envelope and their role in human disease; Discussion; Nuclear membrane protein emerin: roles in gene regulation, actin dynamics and human disease; Discussion; Identification of novel integral membrane proteins of the nuclear envelope with potential disease links using subtractive proteomics; Discussion; Genetics of laminopathies DiscussionMuscular dystrophies related to the cytoskeleton/nuclear envelope; Discussion; Skeletal and cardiac muscle defects in a murine model of Emery-Dreifuss muscular dystrophy; Discussion; Multiple pathways tether telomeres and silent chromatin at the nuclear periphery: functional implications for Sir-mediated repression; Discussion; A-type lamin-linked lipodystrophies; Discussion; Cytoskeletal defects in amyotrophic lateral sclerosis (motor neuron disease); Discussion; LMNA mutations in progeroid syndromes; |

## Discussion

A genetic approach to study the role of nuclear envelope components in nuclear positioning Discussion; General discussion I; A lamin-dependent pathway that regulates nuclear organization, cell-cycle progression and germ-cell development; Discussion; Mutations in the mouse Lmna gene causing progeria, muscular dystrophy and cardiomyopathy; Discussion; The nuclear membrane and mechanotransduction: impaired nuclear mechanics and mechanotransduction in lamin A/C-deficient cells; Discussion; Chair's summing-up; Index of contributors; Subject index

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## Sommario/riassunto

This book draws together contributions from cell and developmental biologists, structural biologists, geneticists and clinical scientists aimed at a better understanding of the cellular and molecular basis of these diseases. Topics include: How nuclear structure and location within a nucleus affect gene expression Chromatin organization and cell differentiation The nature of the interactions between the nuclear envelope and the cytoskeleton The extent to which the cytoskeleton mediates communication between the cell membrane and nucleus in regulating gene expression and whether

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