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Titolo	Cell Migrations: Causes and Functions // edited by Caterina A. M. La Porta, Stefano Zapperi
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Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (VII, 135 p. 42 illus., 39 illus. in color.)
Collana	Advances in Experimental Medicine and Biology, , 2214-8019 ; ; 1146
Disciplina	571.6 571.67
Soggetti	Cytology Bioinformatics Biophysics Biology - Technique Cell Biology Computational and Systems Biology Biological Techniques
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Computational modeling of Collective Cell Migration: Mechanical and biochemical aspects -- Contour models of cellular adhesion -- Force and Collective Epithelial Activities -- Continuum models of collective cell migration -- Statistical features of collective cell migration -- Cell migration in microfluidic devices: Invadosomes formation in confined environments -- Collective Cell Migration in Development -- Nuclear mechanics and cancer cell migration.
Sommario/riassunto	Cell migration plays an important role during development and in many physiological and pathological processes, from wound healing to cancer. This edited volume presents a collection of contributions meant to illustrate the state of the art on this topic from an interdisciplinary perspective. Readers will find a detailed discussion of the properties of individual and collective cell migration, including the associated biochemical regulation and important biophysical and biomechanical

aspects. The book includes information on the latest experimental techniques employed to study cell migration, from microfluidics to traction force microscopy, as well as the latest theoretical and computational models used to interpret the experimental data. Finally, the role of cell migration in cancer and in development is also reviewed. The contents of this work should appeal to students and researchers in biology and biophysics who want to get up to date on the latest interdisciplinary development in this broad field of research. The chapters are written in a self-contained form and can also be used as individual articles.

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