

1. Record Nr.	UNINA9910733729003321
Titolo	Engineering Translational Models of Lung Homeostasis and Disease // edited by Chelsea M. Magin
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer , 2023
ISBN	9783031266256
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (328 pages)
Collana	Advances in Experimental Medicine and Biology, , 2214-8019 ; ; 1413
Disciplina	262
Soggetti	Regenerative medicine Biomedical engineering Cytology Biomaterials Cells Biotechnology Regenerative Medicine and Tissue Engineering Biomedical Engineering and Bioengineering Cell Biology Biomaterials-Cells
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
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### Sommario/riassunto

Cutting-edge engineering approaches towards modelling lung homeostasis and disease have created dynamic new opportunities for interdisciplinary collaboration and unprecedented progress toward understanding and treating lung disease. This text connects established research in lung biology and physiology to innovative engineering strategies for pulmonary modelling. This unique approach aims to encourage and facilitate progress among a greater audience of basic and translational scientists, clinicians, and medical practitioners. *Engineering Translational Models of Lung Homeostasis and Disease* illustrates the advances in lung tissue characterization, revealing dynamic changes in the structure, mechanics, and composition of the extracellular matrix. This information paves the way for tissue-informed engineering models of pulmonary tissue, improved design of clinical materials, and advances against a variety of common pathologies. Current translational challenges are highlighted, as are engineering opportunities to overcome these barriers. This foundational text holds valuable lessons for researchers and clinicians throughout the fields of engineering, materials science, cell biology, pulmonary medicine, and clinical science. Chapter 4 is available open access under a Creative Commons Attribution 4.0 International License via [link.springer.com](http://link.springer.com).

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