

1.	Record Nr.	UNIORUON00514435
	Autore	BALABHADRA, Mira
	Titolo	Hindi ki nakha-sikha parampara evam Balabhadra krta Sikha-nakha / sampadaka tatha bhumika lekhaka Sajjana Rama Keni
	Pubbl/distr/stampa	Ilahabada, : Hindustani Ekedemi, 1980
	Descrizione fisica	128 p. ; 22 cm
	Altri autori (Persone)	KENI, Sajjana Rama
	Lingua di pubblicazione	Hindi
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
2.	Record Nr.	UNINA9911015686903321
	Autore	Suki Béla
	Titolo	Mathematical Modeling of the Healthy and Diseased Lung : Linking Structure, Biomechanics, and Mechanobiology // by Béla Suki, Jason H. T. Bates
	Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2025
	ISBN	9783031953224 9783031953217
	Edizione	[1st ed. 2025.]
	Descrizione fisica	1 online resource (479 pages)
	Altri autori (Persone)	BatesJason H. T
	Disciplina	610.28
	Soggetti	Biomedical engineering Biomathematics Respiratory organs Physiology Bioinformatics Biomedical Engineering and Bioengineering Mathematical and Computational Biology Respiratory Physiology Computational and Systems Biology
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa

Livello bibliografico

Monografia

Nota di contenuto

introduction -- lung anatomy and physiology -- lumped parameter models of lung function -- parenchymal tissue elasticity -- tissue viscoelasticity -- homeostasis and repair -- asthma -- pulmonary fibrosis -- chronic obstructive pulmonary disease -- acute lung injury -- lung defenses -- the aging lung -- what is coming next.

Sommario/riassunto

The lung is a complex multiscale organ that serves as the primary interface between the environment and the tissues of the body. Homeostatic maintenance of lung function throughout life is essential for health. While failure of lung homeostasis underlies many of the most common chronic diseases that afflict mankind, the precise pathophysiologic mechanisms involved are often unclear. Investigative techniques such as microscopic imaging and atomic force microscopy are providing new insights into lung tissue properties at the micro scale. It nevertheless remains to be seen how this growing body of information can be integrated into a comprehensive picture of the lung. Mathematical and computational modeling has emerged as an essential tool for gaining such a holistic understanding. This book introduces the reader to the art of modeling as a means of linking lung structure to function over multiple length scales from the intracellular level to that of the whole organ, with specific attention given to the pathophysiology of a number of common lung diseases and aging.