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Nota di contenuto	Chapter 1. EMT -- Chapter 2. Nuclear/Chromatin Mechanics -- Chapter 3. Cell level mechanical changes -- Chapter 4. Physical aspects related to metabolism -- Chapter 5. Mechanical tropism / Physical aspects of seed and soil -- Chapter 6. Tumor microenvironment interactions -- Chapter 7. Extracellular Matrix -- Chapter 8. Physical Assays Focused on Tumor Heterogeneity -- Chapter 9. Ecology / evolution of the tumor microenvironment -- Chapter 10. Spatial transcriptomics / proteomics in the Human Tumor Atlas.
Sommario/riassunto	Engineering and Physical Approaches to Cancer addresses the newest research at this interface between cancer biology and the physical sciences. Several chapters address the mechanobiology of collective and individual cell migration, including experimental, theoretical, and computational perspectives. Other chapters consider the crosstalk of biological, chemical, and physical cues in the tumor microenvironment, including the role of senescence, polyploid giant cells, TGF-beta,

metabolism, and immune cells. Further, chapters focus on circulating tumor cells and metastatic colonization, highlighting both bioengineered models as well as diagnostic technologies. Further, this book features the work of emerging and diverse investigators in this field, who have already made impressive cross-disciplinary scientific contributions. This book is designed for a general audience, particularly researchers conversant in cancer biology but less familiar with engineering (and vice-versa). Thus, we envision that this book will be suitable for faculty, postdoctoral fellows, and advanced graduate students across medicine, biological sciences, and engineering. We also anticipate this book will be of interest to medical professionals and trainees, as well as researchers in the pharmaceutical and biomedical device industry.