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Nota di contenuto	Part 1. Cellular and molecular mechanisms in inflammatory diseases -- Chapter 1. Vascular Diseases as mediator of systemic inflammation -- Chapter 2. Inflammation and gut microbiote -- Chapter 3. Cardioimmunology: na interdisciplinar approach -- Chapter 4. Cell therapy as strategy for respiratory Diseases -- Chapter 5. Mitochondrial dysfunction as a trigger of inflammation in cardiovascular diseases -- Chapter 6. Cancer therapy-induced inflammation and its consequences -- Chapter 7. Coupling glucose phosphorylation to oxygen in brain mitochondria: would it be redox set point? -- Chapter 8. Methods for the analysis of arachidonic acid-derived metabolites in platelets -- Part 2. Nanomedicines for inflammatory diseases -- Chapter 9. In vitro models and molecular markers for assessing nano-based systems inflammatory potential -- Chapter 10. Using micro- and nanocarriers for myocardial targeted

delivery -- Chapter 11. Nano-based hydrogels for atopic dermatitis treatment -- Chapter 12. Nanomedicine applied to inflammatory bowel diseases -- Chapter 13. Nanomedicine therapies for macrophage-targeted delivery -- Chapter 14. Nano-based therapies for pulmonary inflammatory diseases -- Chapter 15. Pulmonary inflammation treated by nanocarriers.

Sommario/riassunto

Biotechnology involves an interdisciplinary science that provides an interface between biological, molecular and cellular aspects of living organisms with broad technologies applicable in the fields of health, environment and materials. This book “Biotechnology applied to inflammatory diseases: Cellular mechanisms and nanomedicine” is focused on elaborating especially on two trendy areas from Biotechnology. In this volume, different inflammatory pathologies in terms of cellular and molecular mechanisms are characterized to better understand the science behind current precision medicine. The second part of the book focuses on the main biotechnological advancements for the understanding of the molecular mechanisms involved in the progression of various types of inflammatory diseases, highlighting up-to-date contributions of nanomedicine. The reader will be able to explore the utilization of technologies for various inflammatory diseases and will be able to enable an engaging and valuableknowledge for further research and clinically applied scenarios. .