Mustansar Hussain / Srivastava / Hussain

Green Microbial Nanotechnology for Biomedical Applications

New and Future Developments in Microbial Biotechnology and Bioengineering

Green Microbial Nanotechnology for Biomedical Applications: New and Future Developments in Microbial Biotechnology and Bioengineering delves into innovative, sustainable practices for biomedical applications. The book presents a comprehensive exploration of the latest scientific advancements in environmentally conscious nanomaterial synthesis and their implications for cutting-edge biomedical technologies. Readers will discover how these eco-friendly solutions can revolutionize drug delivery systems, gene therapy, and tissue engineering, all while adhering to the principles of sustainability and green science. Structured into five insightful parts, this volume begins with the fundamentals of green microbial (nano)biotechnology, covering essential topics such as nano-enabled drug delivery, nanoparticle-mediated therapies, and applications in neurological disorders. Subsequent sections dive into advanced biomedical imaging techniques using microbial nanoprobes and nanosensors, the application of (nano)biotechnology in various engineering domains, and compelling case studies that illustrate real-world applications. Finally, the book addresses future perspectives, regulatory frameworks, and ethical considerations, ensuring a holistic understanding of the field. Green Microbial Nanotechnology for Biomedical Applications: New and Future Developments in Microbial Biotechnology and Bioengineering is an invaluable resource for researchers, chemical engineers, and professionals in microbiology, nanotechnology, biomedical engineering, and environmental science, providing the knowledge and insights needed to explore the promising advancements and challenges of green microbial (nano)biotechnology, paving the way for sustainable innovations.

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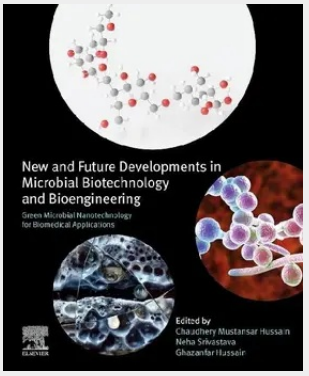

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