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Autore	Arunachalam Karuppusamy
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Nanomaterial Carbon Quantum Dots for Biomedical Application -- Cannabidiol in the Immune Response and Its Role in Nanotheranostics -- Piperlongum Derivates Nanoparticles Causes Cell Death Induced by Oxidative Stress -- Advanced Green Synthesis Techniques of Metal Nanocomposites for Enhanced Biomedical Applications Investigating Biocompatibility Drug Delivery and Therapeutic Efficacy -- Non Thermal Atmospheric Pressure Plasma Fabricated Metal Nanocomposite and Their Biomedical Applications -- Emerging Advanced Green Synthesis of Carbon Nanocomposites and the Potential Biomedical Applications -- Metal Nanocomposite Strategies in Alzheimers and Parkinsons Diseases Nano Therapeutics -- Applications Self Assembled Biomolecules Based Nanostructures and Their Biomedical Applications -- Unveiling the Potential Green Synthesis and Characterizations of Metal Nanocomposites in Biomedical Applications -- Metal Nanoparticles Loaded Biomaterials for Wound Healing Applications -- Overcoming Multidrug Resistance in Chemotherapy: Nano Therapeutics with Metal Nanocomposites -- Metal and Metal Oxide Nanoparticles: A Pivotal Tool for Therapeutic and Diagnostic Applications -- Exploring Nano Bio Materials in Lung Cancer Therapy A Focus on Herbal Remedies Enhancing Herbal Efficacy Through Phytosomal Formulation -- Nano-Bio Materials in Agriculture and Food Sector -- Recent Biomedical Advances of Green Mediated Magnetic Nanoparticles.

Sommario/riassunto

Biomaterials play a vital role in medicine today, including restoring function and facilitating diagnosis and disease prevention. Biomaterial-based products consist of either natural or synthetic materials. Biomaterials derived from natural products can consist of materials such as proteins, polysaccharides, lipids, glycoproteins, lipoproteins, cellular matrix, and its components. These products may be used as alternatives to animal-derived and synthetic chemical products to develop new therapeutic and diagnostic approaches with greater eco-friendliness and sustainability, according to new research. They are also biocompatible, biodegradable, renewable, non-toxic, and capable of remodelling. Recently, scientists have been exploring the potential use of plant-based cellular matrix-based biomaterials for the treatment of various communicable and noncommunicable diseases, a trend that has attracted the attention of global biomedical research. Globally, there has been an increase in the need for more effective treatment and diagnostics as a result of the overwhelming disease burden in society. Current Applications of Nanobiomaterials, Volume 1 and Volume 2 together, outline the most widely used biomaterials derived from non-animal natural resources, such as plants, fungi, algae, and microbes, with a focus on novel therapeutic and diagnostic applications.
