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Nota di contenuto	Pharmaceutical Pollution and the Role of Green Alternatives -- Technological Innovation in Environmental Pollution: The Emerging Role of Nanomaterials in Bioremediation and Monitoring -- Nanosensing and Restoration of Water Pollution Using Nanomaterials -- Autologous Peripheral Blood Products in Regenerative Medicine: Preparation, Mechanisms, and Applications -- Nutritional intervention in human therapy -- Plants as a Friendly and Emerging Alternative for Disease Management in Humans -- Small Molecules from Microalgae as an Emerging Sustainable Alternative for Disease Management -- Nanotechnology Applications in Human and Animal Health -- Phytotherapeutic Alternatives Nanotechnology-Based Approaches for Tick Control -- Optimizing the Therapeutic Action of Natural

Compounds Using Nanoparticles.

Sommario/riassunto

The search for reliable, sustainable, and environmentally friendly alternatives has become a global trend due to critical limits worldwide regarding increased pharmacological resistance, pharmaceutical pollution and rising human and zoonotic diseases. Although research based on medicinal plants, algae, blood therapy, among others, has not yet reached its peak, it has shown promising results and become a reliable and sustainable hope for combating emerging human diseases. In recent decades, innovations have included the use of nanovehicles to deliver pharmacologically active compounds, aiming to enhance their curative effect, pharmacological selectivity, and controlled release. While some studies highlight the limitations of nanovehicles/nanodrugs, most acknowledge their superiority over conventional dosing forms. Nanodrugs can overcome various physiological barriers in the human body, providing controlled drug release at the desired site, increasing therapeutic potential, and reducing toxicity. They also enhance pharmacokinetics and pharmacodynamics. *Natural Alternatives and Nanotechnology Applied to the One Health Approach* explores the pharmacological potential of various natural sources to combat certain human and zoonotic diseases and the contribution of nanotechnology in dosing active compounds for select diseases.