

ULST Timisoara Multidisciplinary Conference on Sustainable Development 15-16 May 2025



Green Nanostructures to Improve the Therapeutic Profile and Support Sustainable Consumption

Alina ANTON1,2^{*}, Cristina Adriana DEHELEAN1,2

1 Department of Toxicology, Drug Industry, Management and Legislation, Faculty of Pharmacy, "Victor Babes," University of Medicine and Pharmacy Timisoara, Eftimie Murgu Square No. 2, 300041, Timisoara, Romania 2Research Center for Pharmaco-toxicological Evaluations, Faculty of Pharmacy, "Victor Babes" University of Medicine and Pharmacy Timisoara, Eftimie Murgu Square No. 2, 300041, Timisoara, Romania dolghi.alina@umft.ro

Introduction

Bio-friendly, eco-friendly, and safe medicines are one of the most interesting topics in the medical and pharmaceutical field due to expanding research in medicinal plants over the past years. Today's enhancement in demand for medicinal plants is closely linked to continuously updated knowledge of the phytochemical properties, therapeutics, affordability, and availability of herbal products compared to classic drugs. Studies indicate that herbal nanomaterials are rapidly making progress and developing; thus, herbal nanoparticles, compared to traditional herbs, result in enhanced bioavailability, stability, and diminished toxicity [1].

The aim of the present study is to identify the main methods of encapsulation for natural medicines approaching them from the point of view of applicability and sustainability.



Results and discussions

Conclusion: the use of biotechnology in the medical field has the potential to transform science and healthcare in ways that benefit







2. Mughees M, Wajid S. Herbal Based Polymeric Nanoparticles as a Therapeutic Remedy for Breast Cancer. Anticancer Agents Med Chem. 2021;21(4):433-444. doi: 10.2174/1871520620666200619171616. PMID: 32560619.