

Novel Drug Delivery Approaches for the Treatment of Auto-Immune Disorders

Sailaja AK

Department of Pharmaceutics, RBVRR Women's College of Pharmacy, Barkatpura, Hyderabad, Telangana, India

Abstract

Recent advances in science and technology radically changed the way we detect, treat and prevent different diseases in all aspects of human life. Rheumatoid arthritis (RA) is a chronic, systemic, progressive, autoimmune disease in which the body's immune system whose major role is to protect the health by attacking foreign bacteria and viruses are mistakenly, attacking the joints resulting in thickened synovium, pannus formation, & destruction of bone, cartilage. Still now researchers are unable to know the exact cause of this disease. However, it is believed that genes and environmental factors play a role in development of RA. In this review, we discuss the Pathophysiology, predictors, & factors involved in pathogenesis of RA. We also discuss the Conventional therapeutic agents for Rheumatoid Arthritis. More importantly, we extensively discuss the emerging novel drug delivery systems (NDDS) like nanoparticles, dendrimers, micelles, microspheres, liposomes, and so on as these are the promising tools having successful applications in overcoming the limitations associated with conventional drug delivery systems. Although several NDDS have been used for various purposes, liposomes have been focused on due to its potential applications in RA diagnosis and therapy. In addition, we discuss the therapeutic effectiveness and challenges for RA by using these novel drug delivery systems. Finally, we conclude by discussing the future perspectives.

Biography

Dr. A. Krishna Sailaja is currently working as Associate Professor and Head of the Department in RBVRR Women's college of pharmacy, Osmania University, Hyderabad. She has published 130 research papers in various National and International journals. She delivered more than 25 talks on novel drug delivery systems. Published 5 books and filed 4 patents.