Shiguo Sun

Northwest A&F University
China

Development on the cancer therapeutic drug delivery systems based on mesoporous nano silica

Abstract:

Cancer is one of the most dangerous diseases to date. To meet the fast development of diverse nanosystems for various cancer therapies, noninvasive and biocompatible mesoporous silica nanoparticle (MSN)-based drug delivery systems (DDSs) have developed rapidly. In recent years, a series of drug delivery systems based on the MSNs were developed in our group, including being a plain loading and delivery vehicle, for biodegradable dual-responsive drug delivery, triple-stimuli responsive system construction, synergistic combinatorial cancer therapeutic system building, and width-consistent mesoporous silica nanorods with a precisely controlled aspect ratio for multi-therapeutic application etc. Hopefully, all these can shed new light on the future design and application of nanosystems for synergistic combinatorial therapy, and offer an overview for researchers related.

Biography

Shiguo Sun has completed his PhD from Dalian University of Technology, China and postdoctoral studies from Royal Institute of Technology, Sweden. He is a professor and doctoral supervisor at the College of Chemistry & Pharmacy, Northwest A&F University, China. He has published more than 150 papers in reputed journals. His research interests include Systematic Targeting Pharmaceutics (STP); Visible Sensor Guided Drug Delivery and Targeting; Fluorescent Probe and Imaging; Visible Detection of Organelle, Tumor and Virus etc.