

Library Indian Institute of Science Education and Research Mohali



DSpace@IISERMohali (/jspui/)

- / Publications of IISER Mohali (/jspui/handle/123456789/4)
- / Research Articles (/jspui/handle/123456789/9)

Please use this identifier to cite or link to this item: http://hdl.handle.net/123456789/2928

Title: Advances in nanotechnology for diagnosis and treatment of tuberculosis

Authors: Mukherjee, Tapan K. (/jspui/browse?type=author&value=Mukherjee%2C+Tapan+K.)

Keywords: Antituberculosis drug

Dendrimers Mycobacterium Nanoemulsions

Issue Date: 2013

Publisher: Wolters Kluwer Health

Citation: Current Opinion in Pulmonary Medicine, 19(3), pp.289-297.

Abstract:

Purpose of review: Tuberculosis (TB) has been a most turbulent problem prevailing for the last several decades. The emergence of multidrug-resistant strains and the dearth of anti-TB drugs are threatening the future containment of TB. Nanotechnology presents an exciting opportunity for proper identification of mycobacterial strains and to improve the potential of drugs for the treatment of TB. Recent findings: Nanoscience has provided humankind with several unique and comparatively more effective drug delivery carriers, encompassing liposomal-mediated drug delivery, solid lipid nanoparticles, polymeric nanoparticles, dendrimers, nanoemulsions, nanosuspensions and other nanosystems exploiting the extraordinary properties of matter at the nanoscale. Nanoparticle-based assays have shown significant improvements in diagnosis, treatment and prevention of TB. Nanoparticles as drug carriers enable higher stability and carrier capacity along with immense improvement of drug bioavailability which further leads to reduction in dosage frequency. Summary: This review covers the prospect of using nanotechnology for the detection of mycobacterial strains and nanotechnology-based drug delivery systems for effective eradication of mycobacterial infections. Copyright © 2013 Lippincott Williams & Wilkins.

Description: Only IISERM authors are available in the record.

URI: https://journals.lww.com/co-

pulmonarymedicine/Abstract/2013/05000/Advances_in_nanotechnology_for_diagnosis_and.15.aspx

(https://journals.lww.com/co-

pulmonarymedicine/Abstract/2013/05000/Advances_in_nanotechnology_for_diagnosis_and.15.aspx)

http://hdl.handle.net/123456789/2928 (http://hdl.handle.net/123456789/2928)

Appears in F

Research Articles (/jspui/handle/123456789/9)

File	Description	Size	Format	
Need to add pdf.odt (/jspui/bitstream/123456789/2928/1/Need%20to%20add%20pdf.odt)		8.63 kB	OpenDocument Text	View/Open (/jspui/bitstream/12345

Show full item record (/jspui/handle/123456789/2928?mode=full)

. I (/jspui/handle/123456789/2928/statistics)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.