

Home (<http://ipindia.nic.in/index.htm>) About Us (<http://ipindia.nic.in/about-us.htm>) Who's Who (<http://ipindia.nic.in/whos-who-page.htm>)  
 Policy & Programs (<http://ipindia.nic.in/policy-pages.htm>) Achievements (<http://ipindia.nic.in/achievements-page.htm>)  
 RTI (<http://ipindia.nic.in/right-to-information.htm>) Feedback (<https://ipindiaonline.gov.in/feedback>) Sitemap (<http://ipindia.nic.in/itemap.htm>)  
 Contact Us (<http://ipindia.nic.in/contact-us.htm>) Help Line (<http://ipindia.nic.in/helpline-page.htm>)

[Skip to Main Content](#) [Screen Reader Access \(screen-reader-access.htm\)](#)



(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in/inc>)

## Patent Search

Invention Title	DEVELOPMENT PROCESS OF ZIDOVUDINE BIO-NANOPARTICLES FOR LUNG SPECIFICITY
Publication Number	36/2017
Publication Date	08/09/2017
Publication Type	INA
Application Number	3311/DEL/2012
Application Filing Date	26/10/2012
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	BIOTECHNOLOGY
Classification (IPC)	A61P7/00

### Inventor

Name	Address	Country	Natio
DR. N.V. SATEESH MADHAV	DIT FACULTY OF PHARMACY MUSSOORIE DIVERSION ROAD, MAKKAWALA, P.O. BHAGWANTPUR DEHRADUN	India	India

### Applicant

Name	Address	Country	Natio
DR. N.V. SATHEESH MADHAV	DIT FACULTY OF PHARMACY MUSSOORIE DIVERSION ROAD, MAKKAWALA, P.O. BHAGWANTPUR DEHRADUN	India	India

### Abstract:

The invention discloses a method for isolating a biopolymer from gossypium herbaceum seeds and formulating bionanoparticles loaded with Zidovudine and using the gossypium herbaceum biopolymer as a nanocarrier. The biopolymer from gossypium herbaceum isolated by simplified and economical process and subjected for physical spectral studies, which includes IR, NMR, DSC and UV spectroscopy which confirms its polymeric nature. The biopolymer was devoid of acute toxicity. The different Zidovudine nanoparticles were prepared using nanocarriers and other coprocessing agents and evaluated for its retardability, in vitro release studies, dispersibility and particle size determination. The results suggest that the nanocarriers show promising retardability and the formulation is feasible for lung specificity.

### Complete Specification

DEVELOPMENT PROCESS OF ZIDOVUDINE  
 BIO-NANOPARTICLES FOR LUNG  
 SPECIFICITY

3

COMPLETE SPECIFICATION

BACKGROUND OF INVENTION

BIO-POLYMER:

Biopolymers are polymers produced by living organisms. Since they are polymers, biopolymers contain monomeric units that are covalently bonded to form larger structures. There are three main classes of biopolymers based on the differing monomeric units used and the structure of the biopolymer formed: polynucleotides, which are long polymers composed of 13 or more nucleotide monomers; polypeptides, which are short polymers of amino acids; and polysaccharides, which are often linear bonded polymeric carbohydrate structures. Cellulose is the most common organic compound and biopolymer on Earth. About 33 percent of all plant matter is cellulose. The cellulose content of cotton is 90 percent and that of wood

[View Application Status](#)



Terms & conditions (<http://ipindia.gov.in/terms-conditions.htm>) Privacy Policy (<http://ipindia.gov.in/privacy-policy.htm>)  
Copyright (<http://ipindia.gov.in/copyright.htm>) Hyperlinking Policy (<http://ipindia.gov.in/hyperlinking-policy.htm>)  
Accessibility (<http://ipindia.gov.in/accessibility.htm>) Archive (<http://ipindia.gov.in/archive.htm>) Contact Us (<http://ipindia.gov.in/contact-us.htm>)  
Help (<http://ipindia.gov.in/help.htm>)

Content Owned, updated and maintained by Intellectual Property India, All Rights Reserved.

Page last updated on: 26/06/2019