(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :01/05/2026

(21) Application No.202641055883 A

(43) Publication Date : 15/05/2026

(54) Title of the invention : A NANOSTRUCTURED LIPID CARRIER BASED PHARMACEUTICAL COMPOSITION FOR THE TREATMENT OF ANDROGENETIC ALOPECIA

(51) International classification	:A61K 47/44, A61K 9/51, A61P 17/14, A61K 31/585, A61K 31/7004
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	: :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

(71)**Name of Applicant :**
1)JSS PHARMACY, OOTY – JSS ACADEMY OF HIGHER EDUCATION AND RESEARCH
Address of Applicant :JSS College of Pharmacy, Near Bombay Castle, Rocklands, ooty, Tamil Nadu, India Ooty Tamil Nadu India
(72)**Name of Inventor :**
1)Pritam Kayal
2)Dr. Jawahar Natarajan
3)Dr. Jubie Selvaraj

(57) Abstract :
The present invention relates to a nanotechnology-based pharmaceutical composition comprising nanostructured lipid carriers (NLCs) for the treatment of androgenetic alopecia. The composition comprises a dual-drug system including spironolactone and 2-deoxy-D-ribose encapsulated within a lipid matrix formed from solid and liquid lipids, preferably stearic acid and fenugreek oil, and stabilized by suitable surfactants. The NLCs are designed to enhance follicular targeting, improve drug stability, and provide controlled release of the active agents. Spironolactone exerts anti-androgenic activity, while 2-deoxy-D-ribose promotes angiogenesis, resulting in synergistic therapeutic efficacy. The formulation exhibits optimized particle size, high drug entrapment efficiency, and sustained release characteristics. The invention further provides a method of preparation using a hot micro emulsion technique followed by homogenization and cooling. The composition offers improved efficacy with reduced systemic side effects and is suitable for scalable production.

No. of Pages : 21 No. of Claims : 9