

(54) Title of the invention : LIPID NANO-CARRIER BASED TRANSDERMAL GEL FOR THE TREATMENT OF PAIN MANAGEMENT

<p>(51) International classification :A61K0009060000, A61K0047100000, A61K0009700000, C07K0014715000, A61K0009000000</p> <p>(86) International Application No Filing Date :PCT// :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number Filing Date :NA :NA</p> <p>(62) Divisional to Application Number Filing Date :NA :NA</p>	<p>(71)Name of Applicant :</p> <p>1)Ms. Sangeetha Govindarajan Address of Applicant :Assistant Professor, Krupanidhi College of Pharmacy, Bangalore Urban, Bengaluru, Karnataka - 560035 Bengaluru -----</p> <p>2)Dr. Swamivelmanickam Mahalingam 3)Mr. Thirumal valavan Subramanian Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor :</p> <p>1)Ms. Sangeetha Govindarajan Address of Applicant :Assistant Professor, Krupanidhi College of Pharmacy, Bangalore Urban, Bengaluru, Karnataka - 560035 Bengaluru -----</p> <p>2)Dr. Swamivelmanickam Mahalingam Address of Applicant :Associate Professor, Department of Pharmacy, FEAT, Annamalai University, Annamalai Nagar, Cuddalore, Chidambaram, Tamil Nadu - 608002 Chidambaram --- -----</p> <p>3)Mr. Thirumal valavan Subramanian Address of Applicant :3/84D, West street, Muthandikuppam, Perperiyankuppam Post, Cuddalore, Tamil Nadu - 607805 Muthandikuppam -----</p>
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(57) Abstract :

The present invention relates to the design and develop a PN gel-based transdermal delivery system for TPL. To avoid the drug abuse potential associated with the oral TPL, it was repurposed into a transdermal delivery by using the proniosomal gel carrier. The TPL loaded PN gel was developed successfully by implementing the QbD approach throughout the development process. A preformulation study was carried out to determine the feasibility of TPL formulation via the transdermal route. The physicochemical properties of TPL were studied, the results were adequate to support the drug via the transdermal route.

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