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(54) Title of the invention : FORMULATION AND DEVELOPMENT OF LIPID BASED DRUG DELIVERY SYSTEM OF GLICLAZIDE

<p>(51) International classification :A61K0009510000, A61K0009107000, A61K0009480000, A61K0047260000, A61K0031640000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant :</p> <p>1)Mr. Aditya Sharma Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----</p> <p>2)Dr. Navneet Verma</p> <p>3)Dr. Sushil Kumar</p> <p>4)Dr. Neelkant Prasad</p> <p>5)Dr. Prevesh Kumar</p> <p>6)Mr. Ashwin Kumar Saxena</p> <p>7)Dr. Munesh Mani</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor :</p> <p>1)Mr. Aditya Sharma Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----</p> <p>2)Dr. Navneet Verma Address of Applicant :Professor, Pharmacy Academy, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----</p> <p>3)Dr. Sushil Kumar Address of Applicant :Professor, School of Pharmaceutical Sciences, IFTM University, Moradabad, Uttar Pradesh, Pin Code:244102 Moradabad -----</p> <p>4)Dr. Neelkant Prasad Address of Applicant :Associate Professor, SGT College of Pharmacy, SGT University, Gurugram-Badli Road, Budhera, Gurugram, Haryana, Pin Code: 122505. Budhera -----</p> <p>5)Dr. Prevesh Kumar Address of Applicant :Assistant Professor, Pharmacy Academy, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----</p> <p>6)Mr. Ashwin Kumar Saxena Address of Applicant :Assistant Professor, School of Pharmaceutical Sciences, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----</p> <p>7)Dr. Munesh Mani Address of Applicant :Pharmacy Academy, IFTM University, Moradabad, Uttar Pradesh, Pin Code: 244102 Moradabad -----</p>
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(57) Abstract :

The present invention relates to the formulation of lipid based drug delivery system of Gliclazide. Formulations were prepared by mixing the drug and carrier using heat fusion method as it is considered as the mechanism for the enhancement of solubility and dissolution of the drug. The in-vitro releases of the different formulations were studied based on the effect of surfactant and oil including their thermodynamic stability. Formulated drug and adjuvants were characterized by spectrophotometry (UV, FTIR and photon correlation). Dissolution studies showed that F3 had the smallest particle size of 127.6 nm, with values for other formulations ranging from 176.8-248.8 nm. The cumulative percentage release for all formulations ranged from 21.20±1.68% to 80.92±3.82%, with F3 having the highest value of 80.92 ± 3.82%. Soya lecithin, soyabean oil and tween 80 showed no significant influence on formulation's stability. These results confirmed that the prepared formulations increases the oral bioavailability

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