(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :22/06/2022

(21) Application No.202211035924 A

(43) Publication Date : 01/07/2022

(54) Title of the invention : FORMULATION AND IN VITRO EVALUATION OF CONTROLLED RELEASE REPAGLINIDE BILAYER TABLETS

(51) International classification :A61K0009200000, A61K0009240000, C07D0295135000, A61K0009280000, A61K0009160000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)**Name of Applicant :**
**1)Dr. Deepti Katiyar**
Address of Applicant :Assistant Professor, KIET School of Pharmacy, KIET Group of Institutions, Delhi-NCR, Ghaziabad-201206, India Ghaziabad ---------- ----------
**2)Dr. Deepak Kumar Dash**
**3)Dr. Pradeep Kumar**
**4)Mr. Rohit Pandey**
**5)Mr. Pandya Yogi Umeshbhai**
**6)Ms. Priya Diwedi**
**7)Dr. Arshad Ahmad**
**8)Dr Samixa Patel**
**9)Dr. Biswaranjan Mohanty**
**10)Ms. Makwana Rajeshreebahen Pravinkumar**
**11)Dr. C. Kannan**
**12)Mr. Ashish Kumar Pandey**
**Name of Applicant : NA**
**Address of Applicant : NA**
(72)**Name of Inventor :**
**1)Dr. Deepti Katiyar**
Address of Applicant :Assistant Professor, KIET School of Pharmacy, KIET Group of Institutions, Delhi-NCR, Ghaziabad-201206, India Ghaziabad ---------- ----------
**2)Dr. Deepak Kumar Dash**
Address of Applicant :Principal, Royal College of Pharmacy, Behind Pt. R.S.University, Raipur, Chhattisgarh, Pin: 492099, India Raipur ---------- ----------
**3)Dr. Pradeep Kumar**
Address of Applicant :Principal, Jeevan Gopi Institute of Pharmacy and Technology, Ahera Baghpat, Delhi NCR, Pin- 2506099, India Baghpat ---------- ----------
**4)Mr. Rohit Pandey**
Address of Applicant :Assistant Professor, Dr. KN Modi Institute of Pharmaceutical Education And Research,Old Cloth Mill, Compound, Opp SBI Main Branch, Modinagar, District Ghaziabad, Uttar Pradesh, Pin 201204, India Modinagar ---------- ----------
**5)Mr. Pandya Yogi Umeshbhai**
Address of Applicant :Research Scholar & Asst Professor, School Of Pharmaceutical Sciences, Atmiya University, Rajkot, Gujarat India Pin 360005, India Rajkot ---------- ----------
**6)Ms. Priya Diwedi**
Address of Applicant :Assistant Professor, AKS University Panna Khajuraho Rd, SherGanj, Satna, Madhya Pradesh 485001, India Satna ---------- ----------
**7)Dr. Arshad Ahmad**
Address of Applicant :Associate Professor, Shri Gopichand College Of Pharmacy, Ahera, Baghpat, Uttar Pradesh,Pin- 250609, India Baghpat ---------- ----------
**8)Dr Samixa Patel**
Address of Applicant :Associate Professor, School of Pharmaceutical Sciences, Atmiya University, Rajkot, Gujarat India. Pin - 360005, India Rajkot ---------- ----------
**9)Dr. Biswaranjan Mohanty**
Address of Applicant :Professor, Institute of Pharmacy and Technology, Salipur. Cuttack -754202, Odisha, India Cuttack ---------- ----------
**10)Ms. Makwana Rajeshreebahen Pravinkumar**
Address of Applicant :Research Scholar, Dharmsinh Desai University, Nadiad,Gujarat ,Pin - 387 001, India Kheda ---------- ----------
**11)Dr. C. Kannan**
Address of Applicant :Associate Professor, J.K.K.Nattraja College of Pharmacy, Nattrajapuram, Kumarapalayam, Namakkal Dt, Tamilnadu, Pin: 638183, India Namakkal ---------- ----------
**12)Mr. Ashish Kumar Pandey**
Address of Applicant :Associate Professor, Faculty of Pharmaceutical Sciences, Shri Shankaracharya Technical Campus, Junwani, Bhilai,Chhattisgarh, Pin- 490020, India Durg ---------- ----------

(57) Abstract :
A method for creating a repaglinide bilayer tablet with a controlled release oral dose form. The method includes a (i) preformulation testing examines the physical and chemical properties of pharmacological compounds on their own and in combination with excipients, (ii) providing information based on the preformulation testing to a formulation team to produce stable and bioavailable dosage forms, (iii) compressing, using a direct compression process, the repaglinide to release a pills rapidly, (iv) combining the active component, wherein the active components comprises a microcrystalline cellulose,Croscarmellose sodium,Cros povidone powder, (v) adding magnesium stearate and talc as a lubricant, (vi) compressing, using a direct compression process, the repaglinide to release a pills sustainly, (vii) combining the active component, wherein the active components comprises a hydroxyl propyl methylcellulose (HPMC), sodium carboxyl methylcellulose (SCMC), soluble starch, lactose, and the active ingredient are mixed together in a homogeneous manner, (viii) adding magnesium stearate and talc as a lubricant, (ix0 placing a sustained release repaglinide granules into the die cavity, with a minor precompression used to ensure that the layer was evenly distributed, followed by immediate release repaglinide granules and (x) compressing, using a 16-station rotating tablet machine, a bilayer tablets using a 10mm punch.

No. of Pages : 20 No. of Claims : 2