(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application: 19/10/2021

(21) Application No.202141047475 A

(43) Publication Date: 05/11/2021

## (54) Title of the invention: A MECHANISM OF HYDROPHILIC MATRIX BASED FOR CONTROLLING THE RELEASE **DRUG**

#### (71)Name of Applicant:

#### 1)Dr. Kumaraswamv.Gandla

Address of Applicant : Professor, Head, Department of Pharmaceutical Analysis, Chaitanya deemed to be university, Hanamkonda, Warangal Urban (Dist.) 506001, Telangana, India. -

2)Dr.R. Gayathri

3)Dr.S.Muthukumar

4)Dr. S. Parimalakrishnan

5)Dr. Shikha Baghel Chauhan

6)Dr. S Ramkanth

7)Dr.C.Sankar

8)Dr.D.Jothieswari

9)Dr. SN Koteswara Rao G

10)Roja Rani Budha

Name of Applicant : NA Address of Applicant : NA

(72)Name of Inventor :

2)Dr.R. Gavathri

3)Dr.S.Muthukumar

1)Dr. Kumaraswamv.Gandla

Address of Applicant : Professor, Head, Department of Pharmaceutical Analysis, Chaitanya deemed to be university, Hanamkonda, Warangal Urban (Dist.) 506001, Telangana, India. -----

Address of Applicant :Professor, Department of Pharmaceutics, Karpagam College of

Pharmacy, othakalmandapam, Coimbatore, Tamilnadu- 641032, India.

 $(51)\ International\ classification \\ A61K0009200000,\ A61K0009280000,\ A61K0009240000,\ A61K0009280000 \\ A61K0008020000,\ A61Q0019080000 \\$ 

(86) International Application

Filing Date (87) International Publication

·NA

:NA

No

Filing Date

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

Filing Date (62) Divisional to Application Number

:01/01/1900

Pharmacy, Kovai Estate, Kalapatti Road, Coimbatore-641048, Tamilnadu, India -

4)Dr. S. Parimalakrishnan Address of Applicant : Associate Professor, Department of Pharmacy, Annamalai University,

Address of Applicant : Assistant Professor, Department of Pharmaceutics, KMCH College of

Annamalai Nagar – 608002. Tamil Nadu.India. -----5)Dr. Shikha Baghel Chauhan

Address of Applicant : Assistant Professor, Department of Pharmaceutics, Amity Institute of Pharmacy, Amity University, Sector 125, Noida, Uttar Pradesh, India -201313 -

### 6)Dr. S Ramkanth

Address of Applicant :Professor & Head, Department of Pharmaceutics, Karpagam College of Pharmacy, Othakalmandapam, Coimbatore-641032, Tamilnadu, India -

### 7)Dr.C.Sankar

Address of Applicant :Professor and Head, Department of Pharmaceutics, KMCH College of Pharmacy, Kovai Estate, Kalapatti Road, Coimbatore- 641048, Tamilnadu, India. --

### 8)Dr.D.Jothieswari

Address of Applicant :Professor, Department of Pharmaceutical Analysis, Sri Venkateswara College of Pharmacy, RVS Nagar, Tirupati Road, Chittoor, Andhra Pradesh-517127. -----

## 9)Dr. SN Koteswara Rao G

Address of Applicant : Vice Principal and Professor, K L College of Pharmacy, Koneru Lakshmaiah Education Foundation Deemed to be University, Vaddeswaram, Guntur District, A.P., India 522502.

# 10)Roja Rani Budha

Address of Applicant :Research Scholar, Institute of Pharmaceutical Technology, Sri Padmavati Mahila Visvavidyalayam, Padmavathi Nagar, Tirupati, Chittoor District, Andhra Pradesh,India. 517502. ---

# (57) Abstract:

ABSTRACT A MECHANISM OF HYDROPHILIC MATRIX BASED FOR CONTROLLING THE RELEASE DRUG The present disclosure relates to, a hydrophilic matrix based mechanism (100) for controlling the release dosage of tablet. After ingested the tablets, the surface of tablets will wet as it becomes immersed in aqueous media. The first layer of tablet consisting of an inner immediate-release layer containing an active ingredient and two outer layers containing swellable polymers. this hydrophilic matrix based mechanism (100) for controlling the release dosage, wherein comprises step of: wetting the tablet polymer initially (102); for hydrating the polymer. hydration of the polymer after wetting forms a gel layer (104); for releasing some part of drug. formation of the gel layer after the hydration of the polymer (106); swelling of the gel through permeation of water into the tablet releases the drug dosages at desired rate (108); erosion of a tablet core through the swelled gel at the concentrate (110). This process continues in patient body at desired rate. (FIG. 1 will be the reference figure)

No. of Pages: 15 No. of Claims: 5