



Number of MoUs, collaborations/linkages during the A.Y. 2017-18

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Dr. Srinivas Rao
PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duvvada, Visakhapatnam-49



VEDAS PHARMA

Memorandum of Understanding (MoU)
between

VEDAS PHARMA
and

VIGNAN INSTITUTE OF PHARMACEUTICAL TECHNOLOGY

This Agreement made by this 1st July 2018, between Vedas Pharma, Vizianagaram, and Vignan Institute of Pharmaceutical Technology, Duvvada, Visakhapatnam.

Objective of the MoU

The objective of this Memorandum of Understanding (MoU) is:

- To promote the interaction between Vedas Pharma and VIPT which is mutually beneficial in the area of research and student training

Proposed Mode of Collaboration

- Sponsoring student projects, Internship and Industrial visits
- Sponsoring R& D projects, this may be carried out wholly or partly at VIPT or Vedas Pharma

Forms of Research and Development Programs

- In their own existing facilities. The performance of research individually by each party or concurrently with both parties in mixed groups at their own facilities.

Agreements for Research Collaboration

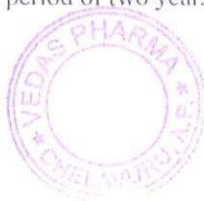
- The nature, scope and schedule of the Research collaboration.
- The form of research collaboration.
- The sponsoring of the research fund.


Signed in Duplicate

- This MoU is executed in duplicate with each copy being an official version of the Agreement
- By signing below, the parties acting by their duly authorized officers have caused this memorandum of understanding to be executed effective as of the day and year first above written. The agreement is valid for a period of two years.


Mr. V. Srikar Prasad
Director

Vedas Pharma
Survey No: 56/11,
Cheluvuru
Vizianagaram, Andhra Pradesh 535005




Dr. Y. Srinivasa Rao
Principal
Vignan Institute of
Pharmaceutical Technology
Beside VSEZ, Duvvada,
Visakhapatnam, Andhra Pradesh 530049

Survey no 56/ 11 to 14 Chelavuru Vizianagaram (Dist) Andhra Pradesh--535005





PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duvvada, Visakhapatnam-49



ఆంధ్ర ప్రదేశ్ ఆంధ్ర ప్రదేశ్ ANDHRA PRADESH

CB 413882

Sr.No. 1385 Date: 04-04-2018 Rs. 100/-

Sold to : Dr. Y. SRINIVASA RAO, S/O NARASIMHA RAO, VSP

For Whom: ***SELF***

MEMORANDUM OF UNDERSTANDING

(To be executed on Rs.100/- Non-judicial stamp paper)

R. S. S. 1925
Ravi Somasekhhar Raju
Licensed Stamp Vendor
L.No. 03-12-004-2017
D.No.8-53, Narava Village,
Pendurthy (M), Visakhapatna

This memorandum of understanding is made on 11th Day June month 2018 Year between VIMS Hospitals, Hanumanthavaka, Visakhapatnam, Andhra Pradesh 530040, AP, which is represented by its Director Dr. K.Satya Vara Prasad herein named as party one.

and

Vignan Institute of Pharmaceutical Technology, (Lavu Educational Society, Guntur) Gajuwaka, Visakhapatnam-530049, AP, affiliated to Jawaharlal Nehru Technological University, Kakinada, AP, represented by its Principal, Dr. Y. Srinivasa Rao herein named as party two.

The parties hitherto agree as follows:

1. Party one declares that VIMS Hospitals, Hanumanthavaka, Visakhapatnam, Andhra Pradesh 530040 AP is a 400 (number) bedded hospital, with a minimum of 120 beds for General Medicine Department.
2. Party one agrees to provide to party two the minimum space necessary of 1200 square feet in the hospital building to establish Pharmacy Practice department for the conduct of Pharm.D programs.
3. Party one agrees to provide preceptors (Teacher Practitioner) required to train the Pharm.D students.
4. Party one agrees that, it will not enter into similar agreement with any other Pharmacy institution/s or department/s offering or intend to offer Pharm.D programs.

(Dr. K.Satya Vara Prasad)
Director

VIMS Hospitals,
Hanumanthavaka, Visakhapatnam – 530040

Director

Visakha Institute of Medical Sciences,
VISA KHAPATNAM

(Dr. Y. Srinivasa Rao)
Principal

Vignan Institute of Pharmaceutical Technology
Gajuwaka, Visakhapatnam-530049

PRINCIPAL

VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duwada, Visakhapatnam - 530049



5. The prospective students will be allowed to undergo training in the following specialty departments

- Medicine
- Surgery
- Pediatrics
- Gynecology and Obstetrics
- Psychiatry
- Skin and VD
- Orthopedics

6. Party two will provide the academic staff and necessary infrastructure for Pharm. D course as per the PCI norms and takes the overall responsibility for smooth conduct of the programs.

7. This agreement is to be in effect at least for ten years from the time of its endorsement by both the parties.

8. The officials representing **VIMS Hospitals.**, and **Vignan Institute of Pharmaceutical Technology.**, are signing this MOU to achieve the beneficial objectives of Pharm.D programs.

(Dr. K.Satya Vana Prasad)
Director

VIMS Hospitals,
Hanumanthavaka, Visakhapatnam – 530040

Director

Visakha Institute of Medical Science
VISAKHAPATNAM



(Dr. Y. Srinivasa Rao)
Principal

Vignan Institute of Pharmaceutical Technology
Gajuwaka, Visakhapatnam-530049

PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside VSEZ, Duvvada, Visakhapatnam-49.



Y. Srinivasa Rao

PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duvvada, Visakhapatnam-49

Memorandum of Understanding (MOU)
Between

ACTIMUS BIOSCIENCES Private Limited

and

VIGNAN INSTITUTE OF PHARMACEUTICAL TECHNOLOGY

This Agreement made by this 5th day of May, 2017, between Actimus Biosciences Private Limited located at Siripuram, Visakhapatnam and Vignan Institute of Pharmaceutical Technology, Duvvada, Visakhapatnam.

Objective of the MOU

The objective of this Memorandum of Understanding (MOU) is:

- To promote the interaction between **ACTIMUS BIO** and **VIPT** which is mutually beneficial in the area of research and student training

Proposed Mode of Collaboration

- Sponsoring student projects, Internship and Industrial visits
- Sponsoring R& D projects, this may be carried out wholly or partly at **VIPT** or **ACTIMUS BIO**

Forms of Research and Development Programs

- In their own existing facilities. The performance of research individually by each party or concurrently with both parties in mixed groups at their own facilities.

Agreements for Research Collaboration

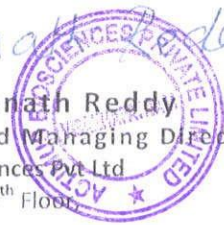
- The nature, scope and schedule of the Research collaboration.
- The form of research collaboration.
- The sponsoring of the research fund.

Signed In Duplicate

- This MOU is executed in duplicate with each copy being an official version of the Agreement
- By signing below, the parties acting by their duly authorized officers have caused this memorandum of understanding to be executed effective as of the day and year first above written. The agreement is valid for a period of two years.

Ramnanth Reddy

Mr. A. Ramnanth Reddy
Chairman and Managing Director
Actimus Biosciences Pvt Ltd
Varun Towers, 4th Floor
Siripuram
Visakhapatnam-530003



Dr. Y. Srinivasa Rao
Dr. Y. Srinivasa Rao
Principal
Vignan Institute of
Pharmaceutical Technology
Bentley Road, Duvvada,
Visakhapatnam-530049, AP



Actimus Biosciences Private Limited

Varun Towers, 4th Floor, Kasturba Marg, Siripuram, Visakhapatnam - 530 003, A.P., INDIA.

Tel : +91 - 891 - 6672 000 Fax : +91 - 891 - 6672111

Website : www.actimusbio.com Email : contact@actimusbio.com



ఆంధ్రప్రదేశ్ ఆంధ్ర ప్రదేశ్ ANDHRA PRADESH

CB 413881

R.S.S. Raju

Ravi Somasekhar Raju
Licensed Stamp Vendor
L.No. 03-12-004-2017

D.No.8-53, Narava Village,
Pendurthy (M), Visakhapatnam.
Phone: 99637 91579

Sl.No. 1384 Date: 04-04-2018 Rs. 100/-

Sold to : Dr. Y. SRINIVASA RAO, S/O NARASIMHA RAO, VSP

For Whom: ***SELF***

MEMORANDUM OF UNDERSTANDING

(To be executed on Rs.100/- Non-judicial stamp paper)

This memorandum of understanding is made on 6th Day April month 2018 Year between RK Hospitals, Chaitnaya Nagar, Gajuwaka, Visakhapatnam – 530026 , AP, which is represented by its Manager Director Dr. V.Krishna Murthy herein named as party one

and

Vignan Institute of Pharmaceutical Technology, (Lavu Educational Society, Guntur) Vadlapudi, Visakhapatnam-530049, AP, affiliated to Jawaharlal Nehru Technological University, Kakinada. AP. represented by its Principal, Dr. Y. Srinivasa Rao herein named as party two

The parties hitherto agree as follows:

1. Party one declares that RK Hospitals. Chaitnaya Nagar. Gajuwaka, Visakhapatnam- 530026 . AP is a 300 (number) bedded hospital. with a minimum of 120 beds for General Medicine Department.
2. Party one agrees to provide to party two the minimum space necessary of 1200 square feet in the hospital building to establish Pharmacy Practice department for the conduct of Pharm.D programs.
3. Party one agrees to provide preceptors (Teacher Practitioner) required to train the Pharm.D students.
4. Party one agrees that, it will not enter into similar agreement with any other Pharmacy institution/s or department/s offering or intend to offer Pharm.D programs.

(Signature of Dr. V. Krishna Murthy)
(Dr. V. Krishna Murthy)
Manager Director
RK Hospital.

Chaitnaya Nagar, Gajuwaka,
Visakhapatnam – 530026.

Dr. V. Krishna Murthy, MB (Int Med)
Consulting Physician, Reg. No. 93
RK HOSPITAL GAJUWAKA
Visakhapatnam



Dr. Y. Srinivasa Rao
PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duvvada, Visakhapatnam-49

(Signature of Dr. Y. Srinivasa Rao)
Dr. Y. Srinivasa Rao
Principal

Vignan Institute of Pharmaceutical Technology
Gajuwaka, Visakhapatnam-530049

PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside VSEZ, Duvvada, Visakhapatnam-49

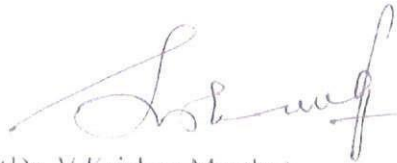
5. The prospective students will be allowed to undergo training in the following specialty departments

- Medicine
- Surgery
- Pediatrics
- Gynecology and Obstetrics
- Psychiatry
- Skin and VD
- Orthopedics

6. Party two will provide the academic staff and necessary infrastructure for Pharm. D course as per the PCI norms and takes the overall responsibility for smooth conduct of the programs.

7. This agreement is to be in effect at least for ten years from the time of its endorsement by both the parties.

8. The officials representing **RK Hospital.**, and **Vignan Institute of Pharmaceutical Technology**, are signing this MOU to achieve the beneficial objectives of Pharm.D programs.



(Dr. V. Krishna Murthy)
Manager Director
RK Hospital,

Chaitanya Nagar, Gajuwaka,
Visakhapatnam - 530026.

Dr V Krishna Murthy, MB (Int Med)
Consulting Phys: No 93736
R.K. HO^s
Visakhapatnam



(Dr. Y. Srinivasa Rao)
Principal

Vignan Institute of Pharmaceutical Technology
Gajuwaka, Visakhapatnam-530049

PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside VSEZ, Duwada, Visakhapatnam-49.




PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duwada, Visakhapatnam-49



Yeluri
Formulations Pvt. Ltd.

Factory : Sy.No. 296 / 7 / 6, IDA Bollaram, Sangareddy Dist. -502 325.
Ph. : 08458 - 279 589, 279 584, Fax : 08458 - 279 354
Corp. Office : 3rd Floor, A.V.M. Towers, Beside Chutneys Restaurant,
Opp. KPHB Colony, Hyderabad - 500 072, Telangana .
Ph. : +91 40 2389 9088, Fax :+91 40 2389 0559

**Memorandum of Understanding (MOU)
Between**

YELURI FORMULATIONS Pvt. Ltd.

and

VIGNAN INSTITUTE OF PHARMACEUTICAL TECHNOLOGY

This Agreement made by this 16th day of February, 2018, between Yeluri Formulations Pvt. Ltd., Hyderabad and Vignan Institute of Pharmaceutical Technology, Duvvada, Visakhapatnam.

Objective of the MOU

The objective of this Memorandum of Understanding (MOU) is:

- To promote the interaction between **YELURI Formulations Pvt. Ltd.** and **VIPT** which is mutually beneficial in the area of research and student training

Proposed Mode of Collaboration

- Sponsoring student projects, Internship and Industrial visits
Sponsoring R& D projects, this may be carried out wholly or partly at **VIPT** or **YELURI Formulations Pvt. Ltd.**

Forms of Research and Development Programs


- In their own existing facilities. The performance of research individually by each party or concurrently with both parties in mixed groups at their own facilities.

Agreements for Research Collaboration

- The nature, scope and schedule of the Research collaboration.
- The form of research collaboration.
- The sponsoring of the research fund.


Signed In Duplicate

- This MOU is executed in duplicate with each copy being an official version of the Agreement
- By signing below, the parties acting by their duly authorized officers have caused this memorandum of understanding to be executed effective as of the day and year first above written. The agreement is valid for a period of two years.


Dr. E. Nageshwar Rao
Director
Yeluri Formulations Pvt. Ltd.,
Sy No: 296/7/6, IDA Bollaram,
Sangareddy Dist.-502325,
Telangana




PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duvvada, Visakhapatnam-49


Dr. Y. Srinivasa Rao
Principal
Vignan Institute of
Pharmaceutical Technology
Beside VSEZ, Duvvada,
Visakhapatnam-530049, AP



**Memorandum of Understanding (MOU)
Between**

SIONC PHARMACEUTICALS PRIVATE LIMITED

and

VIGNAN INSTITUTE OF PHARMACEUTICAL TECHNOLOGY

This Agreement made by this 9th day of February, 2018, between **Sionc Pharmaceuticals Pvt. Ltd.**, Visakhapatnam and Vignan Institute of Pharmaceutical Technology, Duvvada, Visakhapatnam.

Objective of the MOU

The objective of this Memorandum of Understanding (MOU) is:

- To promote the interaction between **Sionc Pharmaceuticals Pvt. Ltd.** and **VIPT** which is mutually beneficial in the area of research and student training

Proposed Mode of Collaboration

- Sponsoring student projects, Internship and Industrial visits
Sponsoring R& D projects, this may be carried out wholly or partly at **VIPT** or **Sionc Pharmaceuticals Pvt. Ltd.**

Forms of Research and Development Programs

- The performance of research individually by each party or concurrently with both parties in mixed groups at their own existing facilities.

Agreements for Research Collaboration

- The nature, scope and schedule of the Research collaboration.
- The form of research collaboration.
- The sponsoring of the research fund.

Signed in duplicate

- This MOU is executed in duplicate with each copy being an official version of the Agreement
- By signing below, the parties acting by their duly authorized officers have caused this memorandum of understanding to be executed effective as of the day and year first above written. The agreement is valid for a period of two years.

Mr. D. Srikanth
Director
Sionc Pharmaceuticals Pvt. Ltd.
Plot No: 34A, JNRC, Phanam,
Parawada Mandal,
Visakhapatnam-531021, AP



Dr. Y. Srinivasa Rao
09/02/18
Dr. Y. Srinivasa Rao
Principal
Vignan Institute of
Pharmaceutical Technology
Beside VSEZ, Duvvada,
Visakhapatnam-530049, AP



Factory : Plot No. 34A, JNRC, Phanam, Parawada Mandal, Visakhapatnam-531021
Andhra Pradesh, India. Tel/Fax : +91-891-236118
E-mail : sionc@ymail.com

Dr. Y. Srinivasa Rao
PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duvvada, Visakhapatnam-49

Regd. Off : # 43-11-56, Subbalakshmi Nagar
Railway New Colony, Visakhapatnam-530 016
Andhra Pradesh, India. Tel/Fax : +91-891-2712875
E-mail : sionc@ymail.com

Memorandum of Understanding (MOU)
Between

ZAINT HEALTH CARE PRIVATE LIMITED

and

VIGNAN INSTITUTE OF PHARMACEUTICAL TECHNOLOGY

This Agreement made by this 25th day of January, 2018, between Zaint Health Care Private Limited located in Hyderabad and Vignan Institute of Pharmaceutical Technology, Duvvada, Visakhapatnam.

Objective of the MOU

The objective of this Memorandum of Understanding (MOU) is:

- To promote the interaction between **ZAINT Health Care Private Limited** and **VIPT** which is mutually beneficial in the area of research and student training

Proposed Mode of Collaboration

- Sponsoring student projects, Internship and Industrial visits
Sponsoring R& D projects, this may be carried out wholly or partly at **VIPT** or **ZAINT Health Care Private Limited**

Forms of Research and Development Programs

- In their own existing facilities. The performance of research individually by each party or concurrently with both parties in mixed groups at their own facilities.

Agreements for Research Collaboration

- The nature, scope and schedule of the Research collaboration.
- The form of research collaboration.
- The sponsoring of the research fund.

Signed In Duplicate

- This MOU is executed in duplicate with each copy being an official version of the Agreement
- By signing below, the parties acting by their duly authorized officers have caused this memorandum of understanding to be executed effective as of the day and year first above written. The agreement is valid for a period of one year.

S. Mal
Mr. Malyadri Somineni
Director
Zaint Health Care Private Limited,
Sy No: 228/E/B, Kucharam Village,
Medak District,
Hyderabad-502336, TG



Dr. Srinivasa Rao
Dr. Y. Srinivasa Rao
Principal
Vignan Institute of
Pharmaceutical Technology
Beside VSEZ, Duvvada,
Visakhapatnam-530049, AP





DESIGN AND CHARACTERISATION OF CONTROLLED RELEASE MATRIX TABLETS OF PIOGLITAZONE WITH NATURAL GUM

P.N. Mallikarjun^{*a,b}, K.E.V. Nagoji^c and Y. Srinivasa Rao^a

^aDepartment of Pharmaceutics, Vignan institute of Pharmaceutical Technology, Duvvada, Visakhapatnam, Andhra Pradesh-530049, India

^bAcharya Nagarjuna University, Guntur, Andhra Pradesh-522010, India.

^cSri Venkateswara college of Pharmacy, Etcherla, Srikakulam, Andhra Pradesh, India

*Corresponding author E-mail: mallik6567@gmail.com

ARTICLE INFO

Key Words

Pioglitazone,
Avena sativa,
matrix tablets,
PVP



ABSTRACT

The objective of this work was to develop and characterize controlled release matrix tablets of Pioglitazone an antidiabetic drug using gum derived from oats (*Avena sativa*) as a release retardant agent. This gum extracted from oats by an established method. Fourier transform infrared spectroscopy studies were performed to find out the interactions between gum and drug. There was no significant interaction between drug and gum. Here matrix tablets of Pioglitazone were prepared with different ratios of gum alone and in combination with PVP by direct compression technique. Tablets thus formulated were evaluated for various quality control tests like weight variation, hardness, friability etc. All matrix tablets were found to have better uniformity of weight and drug content. After evaluation of physical characteristics of tablets, the *in vitro* dissolution test was performed in 0.1 N HCl up to 24 hours. The formulations PAMP3, PAMP4 and PAMP5 containing both gum and PVP controlled the release of drug up to 24 hours. The kinetic release data fitted into different mathematical models (Zero order, First order, Higuchi, Peppas's and Hixson-Crowell). Most of the solid matrix formulations followed Higuchi or zero order kinetics.

INTRODUCTION:

Diabetes mellitus is a chronic metabolic disorder characterized by high blood glucose concentration caused by insulin deficiency, often combined with insulin resistance. Pioglitazone selectively stimulates the nuclear receptor peroxisome proliferator-activated receptor gamma (PPAR- γ) and to a lesser extent PPAR- α . Pioglitazone is used for the treatment of diabetes mellitus type 2 in monotherapy and in combination with a sulfonylurea, metformin, or insulin. Pioglitazone has also been found to reduce the risk of conversion from prediabetes

to diabetes mellitus type 2 by 72%. Pioglitazone also lowers the level of glucose in the blood by reducing the production and secretion of glucose into the blood by the liver¹. Pioglitazone is an oral antidiabetic, belonging to the thiazolidinedione group of drugs. Pioglitazone commonly prescribing drug for patients with type II diabetes and it belongs to class II of Biopharmaceutical Classification System(BCS) having low water solubility which is rate limiting step in absorption of drug in Gastrointestinal tract². Pioglitazone is



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VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duvvada, Visakhapatnam-46



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(<http://www.derpharmachemica.com/archive.html>)

Potential Pericarp: A Review on Therapeutic benefits of Some Fruit Peels

Gana Manjusha Kondepudi^{1*}, Ganga Rao Battu²

¹Assistant Professor, Department of Pharmacognosy and Phytochemistry, Vignan Institute of Pharmaceutical Technology, Visakhapatnam, Andhra Pradesh-530049, India

²Professor, AU College of Pharmaceutical Sciences, Andhra University, India

ABSTRACT

The outer rinds or peels of many fruits are not eaten and are thrown as a waste. Similarly in food industry, processing of fruits results in the formation of agro waste in high amounts and is common in the form of peels. This waste has to be managed efficiently as they pose serious problems to environment. Till now agro waste is used as livestock feed or as fertilizer but recently strategies have been developed to explore the bioactive components from the peels as well as their therapeutic benefits. Many scientific investigations reported the isolation of constituents with promising antioxidant, antimicrobial, antiproliferative activities from the peels of various fruits.





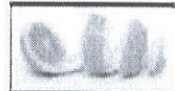
Keywords: Agro waste, Fruit peels, Therapeutic benefits, Bioactive components

INTRODUCTION

Since many years fruits been consumed as a part of normal diet. These fruits have a number of medicinal properties to keep us healthy. This is further supported by the statements in Ayurveda regarding the health promoting potential of fruits and their role in the control of diseases. Many of the phytochemicals isolated from fruits are able to reduce oxidative damage to our cells and are effective in controlling chronic diseases such as diabetes, cancer, heart and neurological diseases [1,2]. In recent times there has been increasing interest in the study of bioactive components from the peels, seeds and flowers and also using agro waste therapeutically is a new idea which is gaining popularity [3].

This review is an attempt to present some of the fruit pericarps and their reported phytochemicals and biological activities (Table 1).

Table 1: List of fruit peels with reported activities

S. No.	Botanical name	Common name	Reported activity	
1.	<i>Ananas comosus</i>	Pine apple	Antimicrobial Antioxidant	
2.	<i>Punica granatum</i>	Pomegranate	Antimicrobial Anti-inflammatory Antiallergic Antidiabetic	
3.	<i>Citrus sinensis</i>	Orange	Antimicrobial Antioxidant Anti-inflammatory Anticarcinogenic	
4.	<i>Musa sapientum</i>	Banana	Antimicrobial Antioxidant	
5.	<i>Chrysanthemum</i>		Antimicrobial Antioxidant Anti-inflammatory Anticarcinogenic	



4. Suresh K
PRINCIPAL
VIGNAN INSTITUTE OF PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duvvada, Visakhapatnam-530046



PREPARATION AND EVALUATION OF GLIPIZIDE ORAL CONTROLLED RELEASE MATRIX TABLETS USING *AVENA SATIVA* GUM

P. N. Mallikarjun*^{1,2}, K. E. V. Nagoji³ and Y. Srinivasa Rao²

¹Acharya Nagarjuna University, Guntur, Andhra Pradesh-522010, India.

²Department of Pharmaceutics, Vignan institute of Pharmaceutical Technology, Duvvada, Visakhapatnam, Andhra Pradesh-530049, India.

³Sri Venkateswara College of Pharmacy, Etcherla, Srikakulam, Andhra Pradesh, India.

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*Corresponding Author

P. N. Mallikarjun

Acharya Nagarjuna

University, Guntur,

Andhra Pradesh-522010,

India.

ABSTRACT

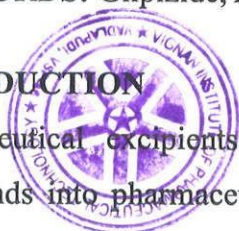
The main purpose of the present work is to study *Avena Sativa* gum (ASG) functionality as a release retardant agent in the development of oral controlled release matrix tablets of Glipizide. ASG extracted from oats (*Avena Sativa*) by an established method. Fourier transform infrared spectroscopy studies were performed to find out the interactions between gum and drug. Here matrix tablets of Glipizide were prepared with ASG alone and in combination with PVP by wet granulation technique. The granules were evaluated for angle of repose, bulk density and compressibility index. The granules showed satisfactory flow properties. Tablets thus formulated were evaluated

for various quality control tests like weight variation, hardness, friability etc. All Glipizide matrix tablets were found to have better uniformity of weight and drug content with low SD values. The dissolution study proved that the ASG can be used as a matrix forming material for making controlled release tablets. The kinetic release data fitted into different mathematical models (Zero order, First order, Higuchi, Peppas's and Hixson-Crowell). Most of the solid matrix formulations followed Higuchi or zero order kinetics.

KEYWORDS: Glipizide, *Avena Sativa* gum (ASG), matrix tablets.

INTRODUCTION

Pharmaceutical excipients are the additives used to convert pharmacologically active compounds into pharmaceutical dosage forms suitable for administration to patients. There



10th June, 2017

TO WHOM SOEVER IT MAY CONCERN

This is to certify that **Ms.Veda Samhitha Konathala** Student of Bachelor of Pharmacy at Vignan Institute of Pharmaceutical Technology, Visakhapatnam has undergone Industrial Training for a period of a month from 1st May 2017 to 31st May 2017.

Ms.Veda Samhitha was trained in the areas of Injectable, Tablets, Capsules, Quality Control, Ware House and R&D departments. During the tenure, we found him to be sincere and hard working.

Her conduct and behaviour is satisfactory during her stay in our organization. We wish her every success in her future endeavours.

For TherDose Pharma Pvt. Ltd.,



B.B Teja

Managing Director



g. siva k
PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duvvada, Visakhapatnam-46

TherDose Pharma Private Limited (100% EOU)

Plot No's. 118 - 120, Sy. No. 342, Road No. 6, ALEAP IE, Pragathi Nagar, Gajularamaram (V),
Kukatpally, Hyderabad 500 090, Telangana, India, CIN: U24239AP2003PTC42272
Tel : +91 40 6516 1624, Fax : +91 40 2316 9955, www.therdose.com

Laurus Labs Limited
Plot No:21, J N Pharma City
Parawada, Visakhapatnam - 531021. India.
T +91 891 306 1222 F +91 891 306 1270


Date: 03.06.2017

TO WHOM SOEVER IT MAY CONCERN

This is to certify that Ms.Y.Renuka Pratyusha , Register No: 14ACIR0065 student of Vignan Institute of Pharmaceutical Technology, Visakhapatnam has completed her Internship in QC Department at our factory, M/s.Laurus Labs Limited, Plot No:21, J N Pharma City, Parawada, Visakhapatnam District during the period from 04.05.2017 to 03.06.2017.

Her character and conduct were found satisfactory.

For Laurus Labs Limited


B.Ramakrishna
General Manager – HR



Y. Renuka
PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duvvada, Visakhapatnam-46

Registered Office : Plot No:21, J N Pharma City, Parawada, Visakhapatnam - 531021. India CIN : U24239AP2005PLC047518
T +91 891 3061222 F +91 891 3061270 E info@lauruslabs.com W lauruslabs.com

LAURUS Generics
Active Pharmaceutical Ingredients & Intermediates

LAURUS Ingredients
Specialty Ingredients for Nutraceutical & Allied Industry

LAURUS Synthesis
Contract Development & Manufacturing Services



DR. REDDY'S

Dr. Reddy's Laboratories Ltd.

Formulations Unit - VII

Plot No. P1 to P9, Phase III

Duvvada, VSEZ,

Visakhapatnam - 530 046, A.P., India.

Tel : 91 891 2702346, 2702349

Fax : 91 891 2514650

www.drreddys.com

June 30, 2018

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Ms. U. Leela, student of Vignan Institute of Pharmaceutical Technology, Visakhapatnam, has undergone training in our organization from 30.05.2018 to 29.06.2018. She has completed her project work on industrial training with the Production and Quality Control, department FTO UNIT VII at Dr. Reddy's Laboratories Limited.

Her conduct during the training period was satisfactory and we wish her all success in future endeavours

With best regards
For Dr.Reddy's Laboratories Ltd.



U. Leela

PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duvvada, Visakhapatnam-49



VERAS Pharmaceuticals Pvt. Ltd.,

30.06.18

Ref: 201/18-19

To,
The Principal,
Vignan Institute Of Pharmaceutical Technology,
Duvvada,
Visakhapatnam.

Dear Sir,

We like to inform you that Miss Reddi Leela Prasanna D/O Mr R.V.S.Narayana B pharma student from your college has undergone industrial training in our manufacturing unit from 30th May 2018 to 29th Jun 2018.

During the training much exposure has been imparted to her in manufacturing of tablets and analysis of various formulations. She shown keen interest in learning and her observation level is excellent.

We wish her all success in the future.

For Veras Pharmaceuticals Pvt Ltd,

V.V.Rao

(V.V.RAO)
Production Manager.



V.V.Rao
PRINCIPAL
VIGNAN INSTITUTE OF
PHARMACEUTICAL TECHNOLOGY
Beside: VSEZ, Duvvada, Visakhapatnam-49