# Collaborative quality initiatives with the other Companies and Institutions

# Industrial Visit by Dr. K. V. Subba Reddy Institution of Pharmacy



Fig.1 Explanation about the raw materials



Fig.2 Pharmaceutical Industry Visit by the Students



Fig.3 Pharmaceutical Industry Visit by the Students





### For [Gengispharma]

Sejal.B

Director

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Email:Info@gengispharma.Com

Website: http://gengispharma.com/

For Dr.K.V. Subba Reddy Institute of Pharmacy

Name: Dr G Nagarajan (Principal)

of Pharmacy C.I New Dollaid Permanently

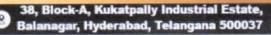
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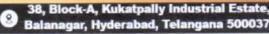
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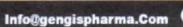
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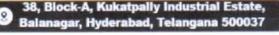
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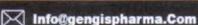
Name: Dr G Nagarajan (Principal)
Dr. K.V.S.R. Institute of Pharmacy
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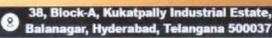
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### First Party:

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(Dr G Nagarajan)

(Principal)

PRINCIPAL Dr. K.V.S.R. Institute of Pharmacy 218 (A.P.)

(B. Uma Rani)









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(Dr G Nagarajan)

(Principal)

Opp: Dupadu R.S. N.H.-4

(B. Uma Rani)









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(Dr C Nagarajan) (Principal) NCIPAL

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(B. Uma Rani)









### Appendix 1 (Sample)

The Collaboration will initially focus on developing partnerships in the areas of Sustainability Rationale

There are strong similarities between Dr.K.V. Subba Reddy Institute of Pharmacy, particularly from a planning/ facilities/ sustainability standpoint. Both Institutions:

- · Have suburban settings
- · are currently undertaking the largest capital development programs in their histories;
- · have similar enrollment numbers;
- · have a commitment to maintaining a sustainable campus environment.

### Potential Activities

Student exchange/visits/scholarship between Dr.K.V. Subba Reddy Institute of Pharmacy and SRG PHARMA.



040-35652763



info@srgpharma.com





### Memorandum of Understanding

Dr.K.V. Subba Reddy Institute of Pharmacy and

### SRG Pharma

This Memorandum of Understanding (MOU) is entered into on this day of 23/07/20 to 23/07/21, by and between Dr.K.V. Subba Reddy Institute of Pharmacy and SRG PHARMA. Dr G Nagarajan (Principal) of Dr.K.V. Subba Reddy Institute of Pharmacy and Deepthi Agarwal(Managing Director) SRG PHARMA agree that cooperationin research collaborations and student and faculty exchanges would be mutually beneficial. Theareas of cooperation may include, subject to mutual consent, any desirable and feasible activitythat would further the goals of each institution. Such interaction may include cooperation in a variety of joint academic and educational activities such as:

- Joint research projects and publications, including work by undergraduate, graduate, students at the partner institutions;
- Faculty and student exchanges based on reciprocity;
- · Reciprocal placement of students in paid internships and co-ops, when possible;
- · Joint conferences and workshops;
- · Team taught courses, including online courses; and
- · Visits by faculty, professional staff, and students.

The parties anticipate that a number of these initiatives will occur during the period of this MOU. However, neither party is obligated to agree to any minimum number of activities, nor is this MOU intended to preclude either party from entering into similar agreements with other institutions.

The following initiatives provide good starting places and can be implemented as soon asadministrative details are agreed upon between the two institutions:

- Summer joint electives;
- Summer undergraduate experiences;
- Faculty and student exchanges and opportunities for paid internships.
- Cooperation in academic and research programs to include, but not limited to, sustainability.



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This MOU shall be identified as the parent document of any program agreement executed between the parties. Further agreements concerning any program shall provide details concerning the specific commitments made by each party and shall not become effective until they have been reduced to writing, executed by the duly authorized representatives of the parties.

### Cooperation in Education and Research

In order to facilitate student exchanges between SRG Pharma and Dr.K.V. Subba Reddy Institute of Pharmacy, the following section provides general procedural information under which the exchange of students between the two institutions will take place. Specific procedures, requirements and duties of the parties in connection with student exchanges shall be set forth in a separate

written program agreement to be executed by the parties.

Cooperation and exchanges may take place with undergraduate, graduate, students. Each exchange maybe for the duration of one academic year, one academic semester, or one intensive course, normallythree or four weeks in length, scheduled either between academic terms or during the summer.

Whenever possible, courses will be team taught by one faculty member from SRG Pharma and one facultymember from Dr.K.V. Subba Reddy Institute of Pharmacy. Courses may be taught at Dr.K.V. Subba Reddy Institute of Pharmacy. at, or concurrently at both campuses through online capabilities.

Students may engage in paid co-op or paid internship opportunities through placements by the hostinstitution, providing they meet the legal criteria of the host country.

Note: International students studying in the United States must comply with U.S. immigrationregulations. Typically, U.S. Immigration law requires that an international student maintain full-time status, prohibits them from taking more than one on-line course per semester, and imposes restrictions on off-campus employment. More flexibility is granted to graduate students visitingthe U.S. for the purpose of research towards the completion of a thesis/dissertation in their homecountries. International students studying in the United States will be required to purchase healthinsurance to meet certain standards such as medical evacuation and repatriation of remains.]



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If two faculty members from each institution are engaged in collaborative research projects, students at one institution may visit and work in the lab of the faculty member at the other institution and incorporate the work done as part of their dissertation research. When connected to projects, the host institution will endeavor to provide a stipend for the visiting doctoral student.

Responsibilities of home institution for academic semester or academic year

exchanges: The home institution will:

Responsibilities of the host institution for academic semester or academic year

exchanges: The host institution will:

- Be responsible for admission decisions of students recommended by the home institution.
- Provide an orientation program for incoming students.
- Endeavor to ensure that students are admitted to courses regarded as essential to their academic programs at their home institutions.
- Assign an academic advisor to all incoming students.
- Assist the incoming student in securing housing.
- · Inform the incoming student of health insurance requirements.
- Provide the home institution with a final transcript of the student's academic performance.

### Short intensive courses:

Short intensive courses offered during the summer or between semesters, will be taught by afaculty member from either Dr.K.V. Subba Reddy Institute of Pharmacy. Students will pay a flat fee to theirhome institutions for the course and that fee will include:

- Airfare to and from the host country;
- Transportation within the host country;
- · Accommodation in the host country;
- Any additional fees charged by the host institution.



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The total cost of each course will differ according to the location of the host country andthe nature of the course being taught.

#### Students will bear the cost of:

- · Their own health insurance and any medical bills or non-mandatory fees;
- · Food, living expenses, and any other costs relating to the exchange;
- Books and necessary academic supplies necessary for the course.

The number of credit hours each student will earn will depend on the nature and length of thecourse and by the department/faculty offering the course.

The primary contacts for this MOU are Institute of Pharmacy .As previously noted, the whenever appropriate to operation for the proposed

for SRG Pharma and Provost for Dr.K.V. Subba Reddy parties shall enter into specific writtenagreements clarify and define the nature, extent, and terms of collaborations, including intellectual property

ownership and funding issues. Any agreement entered into by these two institutions will require the approval of appropriate officers from each institution. All agreements and activities covered under this MOU or entered into bythe parties must comply with all applicable laws and regulations, including all U.S. and India export control laws and regulations.

For agreed upon activities, both institutions will make available their facilities and staffs.

This MOU will take effect on and will be valid for one (1) year from the date noted in the first line of this document unless terminated by one of the parties. Either party may withdrawfrom this MOU provided written notification of the withdrawal is given to the other party at least three (3) months prior to the desired withdrawal date. This MOU may be renewed for another period of one (1) year upon mutual written consent of the parties before the expiration date. Each institution will have copies of this agreement.



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### Office Address

Deepthi Agarwal(Managing Director) Flat No: 107, Mint Towers, Madhapur Email: info@srgpharma.com Website: srgpharma.com

### College Address

Dr G Nagarajan (Principal)
(Approved by AICTE,P.C.l New Delhi&
Permanently Affiliated to JNTUA Anantapuramu
MOU with Government General Hospital
&KMC, K urnool.
Email:
principalkvsrip@gmail.com
Website: https://
www.drkvsrip.ac.in/

The following authorized individuals have signed the present MOU on behalf of their respective institutions:



Deepthi Agarwal(Managing Director)
SRG PHARMA

Dr G Nagarajan (Principal) Dr.K.V. Subba Reddy Institute of Pharmacy

Or. K.V.S.R. Institute of Pharmacy Opp: Supadu R.S. N.H.-44, ODL-518218 (A.P.)







# BALAJI COLLEGE

Approved by A.L.C.T.E. PCI New Delhi and Affiliated to J.N.I.U.A., Anantapurama (Established under Sri Balaji Educational Society, Anantapuramu)

### MEMORANDUM OF UNDERSTANDING

COLLEGE OF PHARMACY AND DR.K.V SUBBA REDDY INSTITUTE OF PHARMACY

This Memorandum of Understanding (here after MOU) is signed by and between: This Memorandum of Understanding (MOU) is effective as of from 12-07-2019 to 12-12-2022(Effective Date) to establish an affiliation by and between Balaji College of Pharmacy, Rudrampet Bypass, Almururoad, Anantapuramu-515002, Andhra Pradesh. India

### DR.K.V SUBBA REDDY INSTITUTE OF PHARMACY

Railway station, NH-44, Dupadu, Lakshmipuram, Kurnool Andhra Pradesh 518218

India here in after referred to as BALA, of the SECONDPART, for the purpose of student's collaboration, faculty and staff collaboration in the academic and research activities.

The afore said institutions are here in after referred to individually as institute and collectively as

Balaji College of Pharmacy, Rudrampeta Bypass, Almuru road, Anantapuram-515002, Andhra

And

Dr. K.V Subba Reddy Institute Of Pharmacy

Railway Station, Nh-44, Lakshmipuram, Kurnool, Dupadu, Andhra Pradesh-518218







www.balajipharmacy.ac.in



🏿 principal.t l @jntua.ac.in



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#### Article 11.

Entry into force, duration and termination.

- a) This MOU shall enter into force on the date of signing.
- b) The Chamber you shall remain in force for a period of five years and may be extended for another period of five years by mutual written consent of the parties.
- e) Either party may terminate this MOU you at any time by giving written notification to the other party on its intention to terminate this MOU, six months prior to the date of the termination.
- International MOU shall not affect the completion of any projects and program in progress and not completed at the terminal at the time of termination

IN WITNESS WHEREOF, the undersigned, have signed this MOU.

BALAJI COLLEGE OF PHARMACY

Rudrampet Bypass, Almururoad, Anantapuram-OF PHARMACY

515002, Andhra Pradesh, India

Principal Dr. V. Sreedhar,

M. Phann, Ph.D.,

Principal

Balaji College of Pharmacy. ANANTHAPURAMU - 515 802

E.Mail:balajicollegeofpharmacy.atp@gmail.com

Web: www.balajipharmaey.ac.in

DR.K.VSUBBAREDDY INSTITUTE OF PHARMACY

Railway station, Nh-44, Lakshmipuram, Kurnool

Dupadu, Andhra Pradesh 518218

Princip RINCIPAL

Dr. K.V.S.A. Institute of Pharmacy

Opp. Dupadu R.S. N.H.-44

Opp. Dupadu R.S. N.H.-44

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## KRISHNA TEJA PHARMACY COLLEGE

(Chadalawada Krishnamurthy Teja Charities)

Approved by AICTE, PCI, New Delhi, Affiliated to JNTUA, Ananthapuram Accredited by NAAC, ISO:9001:2015 Cetified Recognized by UGC Under Section 2 (f) & 12 (B) of UGC Act 1956

Krishna Teja Pharmacy College (KTPC) and DR. K.V Subba Reddy Institute of Pharmacy (KVSR) recognize their strengths in research and education in one or more disciplines of science and their mutual interest in engaging themselves in academic cooperation.

Krishna Teja Pharmacy College (KTPC), here after referred to as the "FIRST PARTY".

DR. K.V Subba Reddy Institute of Pharmacy (KVSR), hereafter referred as the "SECOND PARTY", in the MOU.

KTPC and KVSR therefore agree to establish a programme for academic cooperation in the areas of mutual interest, and in accordance with terms and conditions set forth in this memorandum of understanding (MOU).

### 1. Objectives:

- 1.1. To contribute further to the regional understanding between faculty and staff of KTPC and KVSR for enhancing skills of students/aspirants through internship and vocational training in order to enhance the quality of pharmacy education.
- 1.2. To strengthen collaboration between KTPC and KVSR through academic programs in instruction, research and faculty development among the faculty and students of both parties.

### 2. Scope:

The Scope of collaboration on academic and research activities in this Memorandum of Understanding includes the following categories:

- 1. Developing research projects jointly and avail funding.
- Exchange of academic information, materials and facilities.
- 3. Students Exchange.
- 4. Faculty and Staff Exchange.
- 5. Advertising & Publicity
- 6. Organizing/ participation in Joint symposia, seminars, conferences, workshops etc.
- 7.Commencement, renewal, termination and amendment.
- 8. Resolution of Disputes and Governing Law
- 9. Tenure and Termination
- 10. Intellectual Property



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Recognized by UGC Under Section 2 (f) & 12 (B) of UGC Act 1956

### 1. Developing research projects jointly and avail funding:

Both the parties agree to undertake research projects/activities through sharing of research ideas, data and academic resources that can lead to joint publications, development of any product or other intended outcomes like Intellectual property rights/ patents/discoveries generated out of the research activities, belonging to both parties. Such collaboration activities will also include joint research conferences, visitations and sabbaticals at each other's premises; subject to mutual consent of both the parties. All such joint research activities will be governed by the terms and conditions lay down by separate written agreement by both organizations.

### 2. Exchange of academic information, materials and facilities

Both parties agree to exchange academic information, facilities, resources etc. as mutually agreed from time to time.

### 3. Students Exchange

### 3.1 Student Exchange Programs:

Both the parties agree to develop programs whereby the students of either organization can have the opportunity to study at the other organization with mutual recognition of the credit hours arising there from. It is desired by both organizations that there will be significant flow of students in exchange as reciprocal. Both parties agree to facilitate internship facilities for exchange students as mutually agreed. Pursuant to the specific agreement for academic exchange, KTPC and KVSR will exchange students according to the terms and conditions laid out by separate written agreement by both organizations.

### 3.2 Short Courses/ Summer School:

These courses, usually two to four weeks in duration, will normally be held in spring or summer as mutually agreed. The programs will facilitate visits by students and faculty to learn about the industry environment and culture. In addition to various topics on industry operations and culture, the course would include meetings with industry executives, and visits to various industrial establishments. The cost and other terms of such programs will be mutually worked out separately each year.

### 4. Faculty and Staff Exchange:

Both organizations agree to develop opportunities for faculty to teach courses, conduct seminars and undertake such other activities at each other's campus as mutually agreed. Visiting faculty will be provided with opportunities to observe and share teaching methods and curriculum. KTPC and KVSR will exchange faculty according to the terms and conditions as mutually agreed upon.



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### 5. Advertising & Publicity:

Both the parties will publicly advertise the collaboration under this MOU among students, staff etc., if agreed by their management. Where reasonably possible, in making advertisements or public announcements in relation to this MOU, each organization shall acknowledge the participation of other organization and the contribution that other organization has made if any.

6. Organizing/ participation in Joint symposia, seminars, conferences, workshops etc.:
Both organizations will promote their faculty and staff participation in the conferences, conclaves and seminars organized by each other to strengthen the ties between both the organizations and will also jointly organize symposia, seminars, conferences, workshops and other programs as mutually agreed.

### 7. Commencement, renewal, termination and amendment:

This MOU will come into force upon affixing of the signatures of the representatives of the both organizations and will remain in effect for three (3) years. This MOU will be renewed upon its expiry, as per mutual agreement of both organizations. If either organization wishes to terminate the MOU at the end of the three years' period or in between the period of three years, it must notify the other organization not less than six months prior to the expiry of the MOU. The event of termination will not affect participants from completing their activities at the host party already initiated or ongoing unless otherwise mutually agreed. This MOU, its renewal and the actions taken under it will be reviewed at any time. Modifications to MoU will be made by mutual consent and any amendment or extension to the MOU will be formalized by the exchange of letters and or emails between the two organizations.

### 8. Resolution of Disputes and Governing Law:

In the event of any unforeseen issues or matters not covered herein or any controversy, dispute or difference arising out of or in connection with this MOU, the same shall be resolved amicably by both the organizations. This MOU and further agreements will in all respect be governed by and construed in accordance with the laws of Republic of India. This MOU shall be signed in counterpart. Each counterpart will constitute an original document and these counterparts taken together, shall constitute one and the same MOU.

#### 9. Tenure and Termination:

This MOU will take effect from the date it is signed by representatives of the two institutions. It will remain valid for five years, and may be continued thereafter after suitable review and agreement. Either institution may terminate the MOU by giving written notice to the other institution six months in advance. Once terminated, neither KTPC nor KVSR will be responsible for any losses, financial or otherwise, which the other institutions may suffer.



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However, KTPC and KVSR will ensure that all activities in progress are allowed to complete successfully.

10. Intellectual Property:

KTPC and KVSR agree to respect each other's rights to intellectual property. Further, the intellectual property rights that arise as a result of any collaborative research or activity under this MOU will be worked out on a case-by-case basis, and will be consistent with the officially laid down IPR policies of the two institutions.

PHINCIPAL

KISHNA TEJA PHARMACY COLLEGE

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KTPC and KVSR therefore agree to establish a programme for academic cooperation in the areas of mutual interest, and in accordance with terms and conditions set forth in this memorandum of understanding (MOU). This Memorandum of Understanding (MOU) is effective as of from 26-03-2023 to 27-03-2026.

### 1. Objectives:

- 1.1. To contribute further to the regional understanding between faculty and staff of KTPC and KVSR for enhancing skills of students/aspirants through internship and vocational training in order to enhance the quality of pharmacy education.
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### 2. Exchange of academic information, materials and facilities

Both parties agree to exchange academic information, facilities, resources etc. as mutually agreed from time to time.

### 3. Students Exchange

### 3.1 Student Exchange Programs:

Both the parties agree to develop programs whereby the students of either organization can have the opportunity to study at the other organization with mutual recognition of the credit hours arising there from. It is desired by both organizations that there will be significant flow of students in exchange as reciprocal. Both parties agree to facilitate internship facilities for exchange students as mutually agreed. Pursuant to the specific agreement for academic exchange, KTPC and KVSR will exchange students according to the terms and conditions laid out by separate written agreement by both organizations.

### 3.2 Short Courses/ Summer School:

These courses, usually two to four weeks in duration, will normally be held in spring or summer as mutually agreed. The programs will facilitate visits by students and faculty to learn about the industry environment and culture. In addition to various topics on industry operations and culture, the course would include meetings with industry executives, and visits to various industrial establishments. The cost and other terms of such programs will be mutually worked out separately each year.

### 4. Faculty and Staff Exchange:

Both organizations agree to develop opportunities for faculty to teach courses, conduct seminars and undertake such other activities at each other's campus as mutually agreed. Visiting faculty will be provided with opportunities to observe and share teaching methods and curriculum. KTPC and KVSR will exchange faculty according to the terms and conditions as mutually agreed upon.



:9032114829

9160451112

F-mail

: krishnateja.b.pharmacy@gmail.com

principal.af@intua.ac.in

### KRISHNA TEJA PHARMACY COLLEGE

(Chadalawada Krishnamurthy Teja Charities)

Approved by AICTE, PCI, New Delhi, Affiliated to JNTUA, Ananthapuram Accredited by NAAC, ISO:9001:2015 Cetified Recognized by UGC Under Section 2 (f) & 12 (B) of UGC Act 1956

### 5. Advertising & Publicity:

Both the parties will publicly advertise the collaboration under this MOU among students, staff etc., if agreed by their management. Where reasonably possible, in making advertisements or public announcements in relation to this MOU, each organization shall acknowledge the participation of other organization and the contribution that other organization has made if any.

6. Organizing/ participation in Joint symposia, seminars, conferences, workshops etc.:
Both organizations will promote their faculty and staff participation in the conferences, conclaves and seminars organized by each other to strengthen the ties between both the organizations and will also jointly organize symposia, seminars, conferences, workshops and other programs as mutually agreed.

### 7. Commencement, renewal, termination and amendment:

This MOU will come into force upon affixing of the signatures of the representatives of the both organizations and will remain in effect for three (3) years. This MOU will be renewed upon its expiry, as per mutual agreement of both organizations. If either organization wishes to terminate the MOU at the end of the three years' period or in between the period of three years, it must notify the other organization not less than six months prior to the expiry of the MOU. The event of termination will not affect participants from completing their activities at the host party already initiated or ongoing unless otherwise mutually agreed. This MOU, its renewal and the actions taken under it will be reviewed at any time. Modifications to MoU will be made by mutual consent and any amendment or extension to the MOU will be formalized by the exchange of letters and or emails between the two organizations.

### 8. Resolution of Disputes and Governing Law:

In the event of any unforeseen issues or matters not covered herein or any controversy, dispute or difference arising out of or in connection with this MOU, the same shall be resolved amicably by both the organizations. This MOU and further agreements will in all respect be governed by and construed in accordance with the laws of Republic of India. This MOU shall be signed in counterpart. Each counterpart will constitute an original document and these counterparts taken together, shall constitute one and the same MOU.

### 9. Tenure and Termination:

This MOU will take effect from the date it is signed by representatives of the two institutions. It will remain valid for five years, and may be continued thereafter after suitable review and agreement. Either institution may terminate the MOU by giving written notice to the other institution six months in advance. Once terminated, neither KTPC nor KVSR will be responsible for any losses, financial or otherwise, which the other institutions may suffer.



:9032114829

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E-mail : krishnateja.b.pharmacy@gmail.com

principal.af@jntua.ac.in

# KRISHNA TEJA PHARMACY COLLEGE

(Chadalawada Krishnamurthy Teja Charities)

Approved by AICTE, PCI, New Delhi, Affiliated to INTUA, Ananthapuram Accredited by NAAC, ISO:9001:2015 Cetified Recognized by UGC Under Section 2 (f) & 12 (B) of UGC Act 1956

However, KTPC and KVSR will ensure that all activities in progress are allowed to complete successfully.

10. Intellectual Property:

KTPC and KVSR agree to respect each other's rights to intellectual property. Further, the intellectual property rights that arise as a result of any collaborative research or activity under this MOU will be worked out on a case-by-case basis, and will be consistent with the officially laid down IPR policies of the two institutions.

PHINCIPAL

KISHNA TEJA PHARMACY COLLEGE

Chadalawada Nagar,

Renigualia Regach Timura Gullege,

ChadalawadaNagar,

Renuigunta,

Tirupati - 517506,

Andhra Pradesh.

DR. K.V Subba Reddy Institute of Pharmacy

Near Railway station, NH-44,

Dupadu, Lakshmipuram,

Kurnool-518218,

Andhra Pradesh.



# Vasavi Institute of Pharmaceutical Sciences

(G.O. Ms. No. 103 Higher Education (EC-I) Dept., Dt. 11-08-2008.)

(AICTE, New Delhi, F. No. AP-025/NDEGP/2008-09, Dt. 29-06-2008)

Approved & Recognised by Pharmacy Council of India & AICTE, New Delhi.

Affiliated to J.N.T. University, Anantapur.

Vasavi Nagar, Peddapalli (V), Near Bhakarapet Railway Station, KADAPA (Dt.) - 516 247, A.P.

E-mail: vipskdp@rediffmail.com, www.vipsciences.ac.in

Date: 12 07 2017

Vasavi Institute of Pharmaceutical Sciences, Pedapalli(V), Near Bhakarapeta Railway Station, Sidhout (M), Kadapa,

Andhra Pracesh, India-516247

And

Dr.K.V Subba Reddy Institute Of Pharmacy

Railway Station, Nh-44, Lakshmipuram, Kurnool, Dupadu, Andhra Pradesh 518218

For the purpose of enriching technical education and for continues interaction between institutions.

The above institutions are hereafter referred to individually as Institute and collectively as Institutes.

St. Johns College Of Pharmaceutical Sciences Hereafter Referred To As VIPS, And Nirmala College Hereafter Referred To As Individually Referred To As The Party, And Jointly Referred To As The Parties.



AND



### Vasavi Institute of Pharmaceutical Sciences

(G.O. Ms. No. 103 Higher Education (EC-I) Dept., Dt. 11-08-2008.)

(AICTE, New Delhi, F. No. AP-025/NDEGP/2008-09, Dt. 29-06-2008)

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Vasavi Nagar, Peddapalli (V), Near Bhakarapet Railway Station, KADAPA (Dt.) - 516 247. A.P.

E-mail: vipskdp@rediffmail.com, www.vipsciences.ac.in

Date: 12/07/2017

### MEMORANDUM OF UNDERSTANDING

Between.

VASAVI INSTITUTE OF PHARMACEUTICAL SCIENCES AND DR.K.V SUBBA REDDY INSTITUTE OF PHARMACY

This Memorandum of Understanding (her: after MOU) is signed by and between:

This Memorandum of Understanding (MOU) is effective as of from 12-07-2017 to 12-07-2019 (Effective Date) to establish an affiliation by and between Vasavi Institute Of Pharmaceutical Sciences, Peddapal ('\), Near Bhakarapet Railway Station, Sidhout (M), Kadapa, Andhra Pradesh, India-516247, Andhra Pradesh

· AND

### DR.K.V SUBBA REDDY INSTITUTE OF PHARMACY

Railway station, NH-44, Lakshmipur.ım, Kurnool, Dupadu, Andhra Pradesh 518218

WASAVI INSTITUTE OF PHARMACEUTICAL SCIENCES, Pedapalli(V), Near Bhakarapeta Railway Station, Sidhout (M), kadapa, Andhra Pradesh, India-516247, India here in after referred to as VIPS, of the SECOND PART, for the purpose of student's collaboration, faculty and staff collaboration in the academic and research activities.

The aforesaid institutions are here in after referred to individually as institute and collectively as institutes.



### Vasavi Institute of Pharmaceutical Sciences

(G.O. Ms. No. 103 Higher Education (EC-I) Dept., Dt. 11-08-2008.)
(AICTE, New Delhi, F. No. AP-025/NDEGP/2008-09, Dt. 29-08-2008)
Approved & Recognised by Pharmacy Council of India & AICTE, New Delhi.
Affiliated to J.N.T. University, Anantapur.

Vasavi Nagar, Peddapalli (V), Near Bhakarapet Railway Station, KADAPA (Dt.) - 516 247. A.P.

E-mail: vipskdp@rediffmail.com, www.vipsciences.ac.in

Date: 12/07/2017



#### Article 1

Object of cooperation.

The objective of this Memorandum of understanding is to cooperate in educational projects in area of mutual interest.

### Article 2.

Scope of cooperation.

The parties agreed to implement cooperation programmes, including but not limited to:

- a) Exchange on best practices
- b) Faculty and student
- c) Curriculum development.
- d) Skills based and certification courses that are left to the choices of the two parties.
- e) Other areas as mutually agreed upon parties



### Vasavi Institute of Pharmaceutical Sciences

(G.O. Ms. No. 103 Higher Education (EC-I) Dept., Dt. 11-08-2008.)
(AICTE, New Delhi, F. No. AP-025/NDEGP/2008-09, Dt. 29-06-2008)
Approved & Recognised by Pharmacy Council of India & AICTE, New Delhi.
Affiliated to J.N.T. University, Anantapur.

Vasavi Nagar, Peddapalli (V), Near Bhakarapet Railway Station, KADAPA (Dt.) - 516 247, A.P.

E-mail: vipskdp@rediffmail.com, www.vipsciences.ac.in

Date: 12/07/2017

#### Article 3.

Location of activities.

The parties agrees to implement the program stated in Article 2 at vips & Dr.KVSIP.

Any changes of the location of the programs shall be mutually agreed upon by the parties.

### Article 4

Executing agency.

To implement this Mou:

- a) VIPS appoints the vice principal, head Department of pharmacy, hereinafter referred to as VIPS Rep.
- b) Dr.KVSIP appoints the director of continuing education and international programs.

#### Article 5.

Financial arrangement.

- a) Any cooperation under this MOU is subject to the availability of funding sources and approval by the relevant authorities
- b) Any specific project of joint interest will be detailed in a separate agreement, including financial and program specific arrangement.

### Article 6.

Intellectual property rights.

- a) Each party shall protect, within its territory, the intellectual property rights of the other party in accordance with the domestic law in force in their respective countries.
- b) In case of specific agreement, programs or projects that may result in intellectual property, the parties shall conclude separate agreement in accordance with their respective laws and regulations.



### Vasavi Institute of Pharmaceutical Sciences

(G.O. Ms. No. 103 Higher Education (EC-I) Dept., Dt. 11-03-2008.)

(AICTE, New Delhi, F. No. AP-025/NDEGP/2008-09, Dt. 29-06-2008)

Approved & Recognised by Pharmacy Council of India & AICTE, New Delhi.

Affiliated to J.N.T. University, Anantapur.

Vasavi Nagar, Peddapalli (V), Near Bhakarapet Railway Station, KADAPA (Dt.) - 516 247. A.P.

E-mail: vipskdp@rediffmail.com, www.vipsciences.ac.in

Date:	
Date.	

#### Article 7.

Confidentiality.

In the event that either party wishes to disclose any data and or information supplied in our resulted from the implementation of this I4OU, the disclosing party shall have prior written consent from the other parties.

#### Article 8.

Limitation of personal activities.

The parties shall ensure that their personnel engaged in activities under this MOU shall engaged only in activities under the framework of this MOU with respect to national laws and regulations of the respective countries.

### Article 9.

Any dispute concerning the interpretation and or application of this MOU shall be settled amicably through consultation or negotiation between the parties.

### Article 10.

Amendment.

- a) This MOU may be amended or revised at any time by mutual written consent of the parties, and such amendment shall form an integral part of this MOU.
- b) Such amendment or revision shall come into force on the date as may be determined by the parties.



### Vasavi Institute of Pharmaceutical Sciences

(G.O. Ms. No. 103 Higher Education (EC-I) Dept., Dt. 11-08-2008.)

(AICTE, New Delhi, F. No. AP-025/NDEGP/2008-09, Dt. 29-06-2008)

Approved & Recognişed by Pharmacy Council of India & AICTE, New Delhi.

Affiliated to J.N.T. University, Anantapur.

Vasavi Nagar, Peddapalli (V), Near Bhakarapet Railway Station, KADAPA (Dt.) - 516 247. A.P.

E-mail: vipskdp@rediffmail.com, www.vipsciences.ac.in

Date			
Date			

#### Article 11.

Entry into force, duration and termination

- a) This MOU shall enter into force on the date of signing.
- b) The Chamber you shall remain in force for a period of five years and may be extended for another period of five years by mutual written consent of the parties.
- c) Either party may terminate this MOU you at any time by giving written notification to the other party on its intention to term nate this MOU, six months prior to the date of the termination.
- d) International MOU shall not affect the completion of any projects and program in progress and not completed at the terminal at the time of termination.

IN WITNESS WHEREOF, the undersigned, have signed this MOU.

VASAVI INSTITUE OF PHARMACEUTICAL SCIENCES,

Pedapalli(V), Near Bhakarapeta Pailway Station, Sidhout (M), kadapa, Andhra Pradesh 516247

Principal NCIPAL
VASAVINSTITUTE OF
PHARMACEUTICAL SCIENCES
Vasavi Nagar, PEDDAPALLI (V).
Near Bhakarapet Railway Station,
SIDPOUR IMPRAPARAMITE ATTENTION

Web: www.vipssciences.ac.in

### DR.K.VSUBBAREDDY INSTITUTE OF PHARMACY

Railway station, Nh-44,Lakshmipuram, kurnool Dupadu, Andhra Pradesh 518218

Principal NCIP.A. P. A. P. A. P. A. P. A. P. A. P. A. P. Dupadu R.S. N.H. 44
Dippe Dupadu R.S. N.H. 44

E.Mail:principalkvsrip@gmail.com

Web:www.drkvsrip.in



### Vasavi Institute of Pharmaceutical Sciences

(G.O. Ms. No. 103 Higher Education (EC-I) Dept., Dt. 11-08-2008.)

(AICTE, New Delhi, F. No. AP-025/NDEGP/2008-09, Dt. 29-06-2008)

Approved & Recognised by Pharmacy Council of India & AICTE, New Delhi.

Affiliated to J.N.T. University, Anantapur.

Vasavi Nagar, Peddapalli (V), Near Bhakarapet Railway Station, KADAPA (Dt.) - 516 247. A.P.

E-mail: vipskdp@rediffmail.com, www.vipsciences.ac.in

Date: 13/07/2019

### MEMORANDUM OF UNDERSTANDING

Between.

VASAVI INSTITUTE OF PHARMACEUTICAL SCIENCES AND DR.K.V SUBBA REDDY INSTITUTE OF PHARMACY

This Memorandum of Understanding (here after MOU) is signed by and between :

This Memorandum of Understanding (MOU) is effective as of from 13-07-2019 to 31-12-2022 (Effective Date) to establish an affiliation by and between Vasavi Institute Of Pharmaceutical Sciences, Peddapalli(\,\), Near Bhakarapet Railway Station, Sidhout (M), Kadapa, Andhra Pradesh, India-516247, Andhra Pradesh

AND

#### DR.K.V SUBBA REDDY INSTITUTE OF PHARMACY

Railway station, NH-44, Lakshmipuram, Kurnool, Dupadu, Andhra Pradesh 518218

VASAVI INSTITUTE OF PHARMACEUTICAL SCIENCES, Pedapalli(V), Near Bhakarapeta Railway Station, Sidhout (M), kadapa, Andhra Pradesh, India-516247, India here in after referred to as VIPS, of the SECOND PART, for the purpose of student's collaboration, faculty and staff collaboration in the academic and research activities.

The aforesaid institutions are here i after referred to individually as institute and collectively as institutes.



# Vasavi Institute of Pharmaceutical Sciences

(G.O. Ms. No. 103 Higher Education (EC-I) Dept., Dt. 11-08-2008.)
(AICTE, New Delhi, F. No. AP-025/NDEGP/2008-09, Dt. 29-06-2008)
Approved & Recognised by Pharmacy Council of India & AICTE, New Delhi.
Affiliated to J.N.T. University, Anantapur.

Vasavi Nagar, Peddapalli (V), Near Bhakarapet Railway Station, KADAPA (Dt.) - 516 247. A.P.

E-mail: vipskdp@rediffmail.com, www.vipsciences.ac.in

Date: 13/07/2019

Vasavi institute of Pharmaceutical Sciences, Pedapalli(V), Near Bhakarapeta Railway Station, Sidhout (M), Kadapa,

Andhra Pradesh, India-516247

And

Dr.K.V Subba Reddy Institute Of Pharmacy

Railway Station, Nh-44, Lakshmipuram, Kurnool, Dupadu, Andhra Pradesh 518218

For the purpose of enriching technical education and for continues interaction between institutions.

The above institutions are hereafter referred to individually as Institute and collectively as Institutes.

Vasavi Institute of Pharmaceutical Sciences Hereafter Referred To As VIPS, And Dr.K.V Subba reddy Institute Pharmacy Hereafter Referred To As Individually Referred To As The Party, And Jointly Referred To As The Parties.



AND



## Vasavi Institute of Pharmaceutical Sciences

(G.O. Ms. No. 103 Higher Education (EC-I) Dept., Dt. 11-08-2008.)

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E-mail: vipskdp@rediffmail.com, www.vipsciences.ac.in

Date: 13/07/2019



#### Article 1

Object of cooperation.

The objective of this Memorandum of understanding is to cooperate in educational projects in area of mutual interest.

#### Article 2.

Scope of cooperation.

The parties agreed to implement cooperation programmes, including but not limited to:

- a) Exchange on best practices
- b) Faculty and student
- c) Curriculum development.
- d) Skills based and certification courses that are left to the choices of the two parties.
- e) Other areas as mutually agreed upon parties



## Vasavi Institute of Pharmaceutical Sciences

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E-mail: vipskdp@rediffmail.com, www.vipsciences.ac.in

Date: 13/07/2019

#### Article 3.

Location of activities.

The parties agrees to implement the program stated in Article 2 at vips & Dr.KVSIP.

Any changes of the location of the programs shall be mutually agreed upon by the parties.

#### Article 4

Executing agency.

To implement this Mou:

- a) VIPS appoints the vice principal, head Department of pharmacy, hereinafter referred to as VIPS Rep.
- b) Dr.KVSIP appoints the director of continuing education and international programs.

#### Article 5.

Financial arrangement.

- a) Any cooperation under this MOU is subject to the availability of funding sources and approval by the relevant authorities.
- b) Any specific project of joint interest will be detailed in a separate agreement, including financial and program specific arrangement.

#### Article 6.

Intellectual property rights.

a) Each party shall protect, within its territory, the intellectual property rights of the other party in accordance with the dome sic law in force in their respective countries.



## Vasavi Institute of Pharmaceutical Sciences

(G.O. Ms. No. 103 Higher Education (EC-I) Dept., Dt. 11-08-2008.)
(AICTE, New Delhi, F. No. AP-025/NDEGP/2008-09, Dt. 29-06-2008)
Approved & Recognised by Pharmacy Council of India & AICTE, New Delhi.
Affiliated to J.N.T. University, Anantapur.

Vasavi Nagar, Peddapalli (V), Near Bhakarapet Railway Station, KADAPA (Dt.) - 516 247, A.P.

E-mail: vipskdp@rediffmail.com, www.vipsciences.ac.in

Date: 13/07/2019

b) In case of specific agreement, programs or projects that may result in intellectual property, the parties shall conclude separate agreement in accordance with their respective laws and regulations.

#### Article 7.

Confidentiality.

In the event that either party wishes to disclose any data and or information supplied in our resulted from the implementation of this MOU, the disclosing party shall have prior written consent from the other parties.

#### Article 8.

Limitation of personal activities.

The parties shall ensure that their personnel engaged in activities under this MOU shall engaged only in activities under the framework of this MOU with respect to national laws and regulations of the respective countries.

#### Article 9.

Any dispute concerning the interpretation and or application of this MOU shall be settled amicably through consultation or negotiation between the parties.

#### Article 10.

#### Amendment.

- a) This MOU may be amended or revised at any time by mutual written consent of the parties, and such amendment shall form an integral part of this MOU.
- b) Such amendment or revision shall come into force on the date as may be determined by the parties.



## Vasavi Institute of Pharmaceutical Sciences

(G.O. Ms. No. 103 Higher Education (EC-I) Dept., Dt. 11-08-2008.)

(AICTE, New Delhi, F. No. AP-025/NDEGP/2008-09, Dt. 29-06-2008)

Approved & Recognised by Pharmacy Council of India & AICTE, New Delhi.

Affiliated to J.N.T. University, Anantapur.

Vasavi Nagar, Peddapalli (V), Near Bhakarapet Railway Station, KADAPA (Dt.) - 516 247, A.P.

E-mail: vipskdp@rediffmail.com, www.vipsciences.ac.in

Date: 13/07/2019

#### Article 11.

Entry into force, duration and termination

- a) This MOU shall enter into force on the date of signing.
- b) The Chamber you shall remain in ferce for a period of five years and may be extended for another period of five years by mutual written consent of the parties.
- e) Either party may terminate this MOU you at any time by giving written notification to the other party on its intention to terminate this MOU, six months prior to the date of the termination.
- d) International MOU shall not affect the completion of any projects and program in progress and not completed at the terminal at the time of termination.

IN WITNESS WHEREOF, the undersigned, have signed this MOU.

# VASAVI INSTITUTE OF , PHARMACEUTICAL SCIENCES,

Pedapalli(V), Near Bhakarapeta Kailway Station, Sidhout (M), kadapa, Anchra Pradesh 516247

PARMINCIPAL
VASAVI INSTITUTE OF
PHARMACEUTICAL SCIENCES
Vasavi Nagar, PEDDAPALLI (V).
Near Bhakarapet Railway Station,
SIDHOUT MIN. WARREN TEATRS IT ail.com

Web:vipssciences.ac.in

## DR.K.VSUBBAREDDY INSTITUTE OF PHARMACY

Railway station, Nh-44, Lakshmipuram, kurnool

Dupadu, Andhra Pradesh 518218

E.Mail:principalkvsrip@gmail.com

Web:www.drkvsrip.in



(Approved by AICTE, PCI and Affiliated to JNTUA, Anantapuramu.)
ISO 9001 - 2015 Certified Institution

Yerrakota, YEMMIGANUR - 518 360, Kurnool (Dist.), A.P.

Ph.:7331157139, 9394228566 (O)

Website: www.sjcps.ac.in-

E-mail: principal.sjcps@gmail.com

Ref. :

Date:

#### MEMORANDUM OF UNDERSTANDING

This memorandum of understanding (hereinafter called the 'MOU') is ENTERED on this 10<sup>th</sup> day of June,2021

BY

St.Johns College of Pharmaceutical Sciences, Yerrakota, Yemmiganur, kurnool (Dt), Andhra Pradesh-518360, the first Party represented herein by its Principal Dr.

V.SREENIVASULU, (here in after referred as first party, the Institution which expression, unless excluded by or repugnant to the subject or context shall include its successors-

in office, administrators and assigns).

#### AND BETWEEN

Dr.K.V Subba Reddy Institute Of Pharmacy

Railway station, NH-44, N R Peta, Dupadu, Andhra Pradesh 518218

For the purpose of enriching technical education and for continues interaction between institutions.

The above institutions are hereafter referred to individually as Institute and collectively as Institutes.

St. Johns College Of Pharmaceutical Sciences Hereafter Referred To As SJCPS & Dr.K.V Subba Reddy Institute Of Pharmacy Hereafter Referred To As KVSIP Individually Referred To As The Party, And Jointly Referred To As The Parties.

#### Article 1

Object of cooperation.

The objective of this Memorandum of understanding is to cooperate in educational projects in area of mutual interest.—

The objective of this Memorandum of understanding is to cooperate in educational projects in area of mutual interest.-

#### Article 2.

Scope of cooperation.

The parties agreed to implement cooperation programmes, including but not limited to:

- a) Exchange on best practices
- b) Faculty and student
- c) Curriculum development.
- d) Skills based and certification courses that are left to the choices of the two parties.
- e) Other areas as mutually agreed upon parties

#### Article 3.

Location of activities.

The parties agrees to implement the program stated in Article 2 at SJCP &Dr.KVSIP.

Any changes of the location of the programs shall be mutually agreed upon by the parties.

#### Article 4

Executing agency.

To implement this Mou:

- a) SJCP appoints the vice principal, head Department of pharmacy, hereinafter referred to as SJCP Rep.
- b) Dr.KVSIP appoints the director of continuing education and international programs.

#### Article 5.

Financial arrangement.

- a) Any cooperation under this MOU is subject to the availability of funding sources and approval by the relevant authorities.
- b) Any specific project of joint interest will be detailed in a separate agreement, including financial and program specific arrangement.

#### Article 6.

Intellectual property rights.

- a) Each party shall protect, within its territory, the intellectual property rights of the other party in accordance with the domestic law in force in their respective countries.
- b) In case of specific agreement, programs or projects that may result in intellectual property, the parties shall conclude separate agreement in accordance with their respective laws and regulations.

#### Article 7.

### Confidentiality.

In the event that either party wishes to disclose any data and or information supplied in our resulted from the implementation of this MOU, the disclosing party shall have prior written consent from the other parties.

#### Article 8.

Limitation of personal activities.

The parties shall ensure that their personnel engaged in activities under this MOU shall engaged only in activities under the framework of this MOU with respect to national laws and regulations of the respective countries.

#### Article 9.

Any dispute concerning the interpretation or application of this MOU shall be settled amicably through consultation or negotiation between the parties.

#### Article 10.

#### Amendment.

- a) This MOU may be amended or revised at any time by mutual written consent of the parties, and such amendment shall form an integral part of this MOU.
- b) Such amendment or revision shall come into force on the date as may be determined by the parties.

#### Article 11.

Entry into force, duration and termination.

a) This MOU shall enter into force on the date of signing.



(Approved by AICTE, PCI and Affiliated to JNTUA, Anantapuramu.)
ISO 9001 - 2015 Certified Institution

Yerrakota, YEMMIGANUR - 518 360, Kurnool (Dist.), A.P.

Ph.:7331157139, 9394228566 (O)

Website: www.sjcps.ac.in

E-mail: principal.sjcps@gmail.com

Ref. :

Date:

- b) The Chamber you shall remain in force for a period of one years and may be extended for another period of one years by mutual written consent of the parties.
- c) Either party may terminate this MOU you at any time by giving written notification to the other party on its intention to terminate this MOU, six months prior to the date of the termination.
- d) International MOU shall not affect the completion of any projects and program in progress and not completed at the terminal at the time of termination.

IN WITNESS WHEREOF, the undersigned, have signed this MOU.

### St. JOHNS COLLEGE OF PHARMACEUTICAL SCIENCES

Yerrakota, Yemmiganur,KurnoolDist,Andhra Pradesh 518360

Principal

St. Johns College of Pharmacuet.cal Science. Yerrakota, Vemmiganur-518 350 4.P

E.Mail:prinicipal.sjcps@gmail.com

Web:www.sjcps.ac.in

# DR. K.V SUBBA REDDY INSTITUTE OF PHARMACY

Railway station, Nh44, N R Peta, Dupadu, Andhra Pradesh 518218

Dr. K.V.S.R. Institute of Pharmacy
Opp: Dupadu R.S. N.H.-44

E.Mail: principalkvsrip@gmail.com

Web:www.dr.kvsrip.in



(Approved by AICTE, PCI and Affiliated to JNTUA, Anantapuramu.) ISO 9001 - 2015 Certified Institution

## Yerrakota, YEMMIGANUR - 518 360, Kurnool (Dist.), A.P.

Ph.:7331157139, 9394228566 (O)

Website: www.sjcps.ac.in

E-mail: principal.sjcps@gmail.com

Ref. :

Date:

# MEMORANDUM OF UNDERSTANDING

This memorandum of understanding (hereinafter called the 'MOU') is ENTERED on this 11<sup>th</sup> day of June,2022

BY

St.Johns College of Pharmaceutical Sciences, Yerrakota, Yemmiganur, kurnool (Dt),

Andhra Pradesh-518360, the first Party represented herein by its Principal Dr.

V.SREENIVASULU, (here in after referred as first party, the Institution which expression,
unless excluded by or repugnant to the subject or context shall include its successorsin office, administrators and assigns).

### AND BETWEEN

Dr.K.V Subba Reddy Institute Of Pharmacy

Railway station, NH-44, N R Peta, Dupadu, Andhra Pradesh 518218

For the purpose of enriching technical education and for continues interaction between institutions.

The above institutions are hereafter referred to individually as Institute and collectively as Institutes.

St. Johns College Of Pharmaceutical Sciences Hereafter Referred To As SJCPS & Dr.K.V Subba Reddy Institute Of Pharmacy Hereafter Referred To As KVSIP Individually Referred To As The Party, And Jointly Referred To As The Parties.

#### Article 1

Object of cooperation.

The objective of this Memorandum of understanding is to cooperate in educational projects in area of mutual interest.—

The objective of this Memorandum of understanding is to cooperate in educational projects in area of mutual interest.-

#### Article 2.

Scope of cooperation.

The parties agreed to implement cooperation programmes, including but not limited to:

- a) Exchange on best practices
- b) Faculty and student
- c) Curriculum development.
- d) Skills based and certification courses that are left to the choices of the two parties.
- e) Other areas as mutually agreed upon parties

#### Article 3.

Location of activities.

The parties agrees to implement the program stated in Article 2 at SJCP &Dr.KVSIP.

Any changes of the location of the programs shall be mutually agreed upon by the parties.

#### Article 4

Executing agency.

To implement this Mou:

- a) SJCP appoints the vice principal, head Department of pharmacy, hereinafter referred to as SJCP Rep.
- b) Dr.KVSIP appoints the director of continuing education and international programs.

#### Article 5.

Financial arrangement.

- a) Any cooperation under this MOU is subject to the availability of funding sources and approval by the relevant authorities.
- b) Any specific project of joint interest will be detailed in a separate agreement, including financial and program specific arrangement.

#### Article 6.

Intellectual property rights.

- a) Each party shall protect, within its territory, the intellectual property rights of the other party in accordance with the domestic law in force in their respective countries.
- b) In case of specific agreement, programs or projects that may result in intellectual property, the parties shall conclude separate agreement in accordance with their respective laws and regulations.

#### Article 7.

#### Confidentiality.

In the event that either party wishes to disclose any data and or information supplied in our resulted from the implementation of this MOU, the disclosing party shall have prior written consent from the other parties.

#### Article 8.

Limitation of personal activities.

The parties shall ensure that their personnel engaged in activities under this MOU shall engaged only in activities under the framework of this MOU with respect to national laws and regulations of the respective countries.

#### Article 9.

Any dispute concerning the interpretation or application of this MOU shall be settled amicably through consultation or negotiation between the parties.

#### Article 10.

#### Amendment.

- a) This MOU may be amended or revised at any time by mutual written consent of the parties, and such amendment shall form an integral part of this MOU.
- b) Such amendment or revision shall come into force on the date as may be determined by the parties.

#### Article 11.

Entry into force, duration and termination.

- a) This MOU shall enter into force on the date of signing.
- b) The Chamber you shall remain in force for a period of one years and may be extended for another period of one years by mutual written consent of the parties.
- e) Either party may terminate this MOU you at any time by giving written notification to the other party on its intention to terminate this MOU, six months prior to the date of the termination.



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d) International MOU shall not affect the completion of any projects and program in progress and not completed at the terminal at the time of termination.

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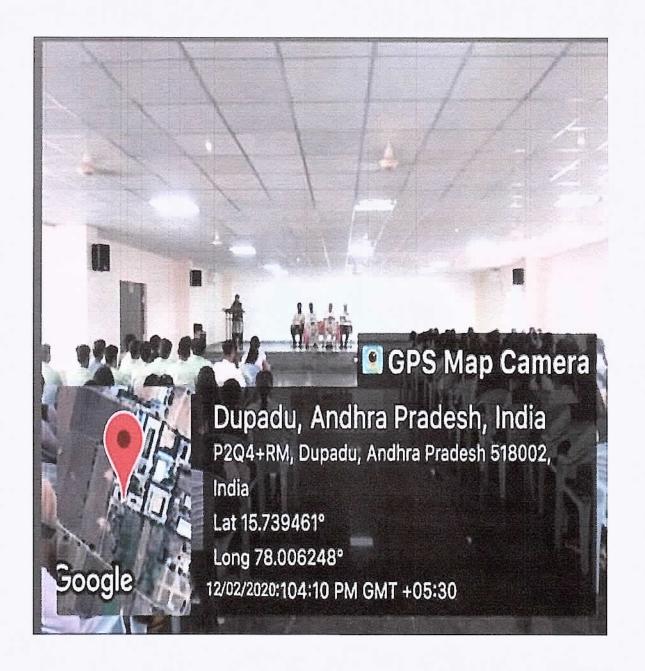
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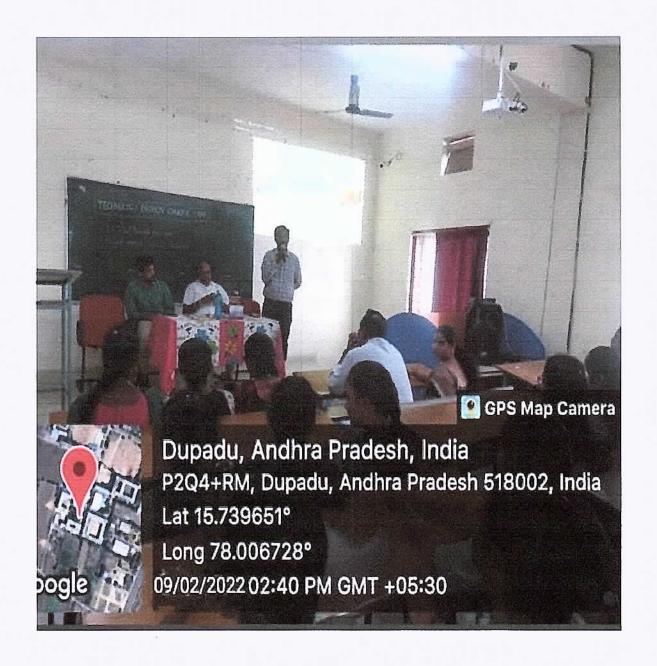
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# WORKSHOP ON "BREAST CANCER AWARENESS"

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## GEO TAG PHOTOS AT WORKSHOPS



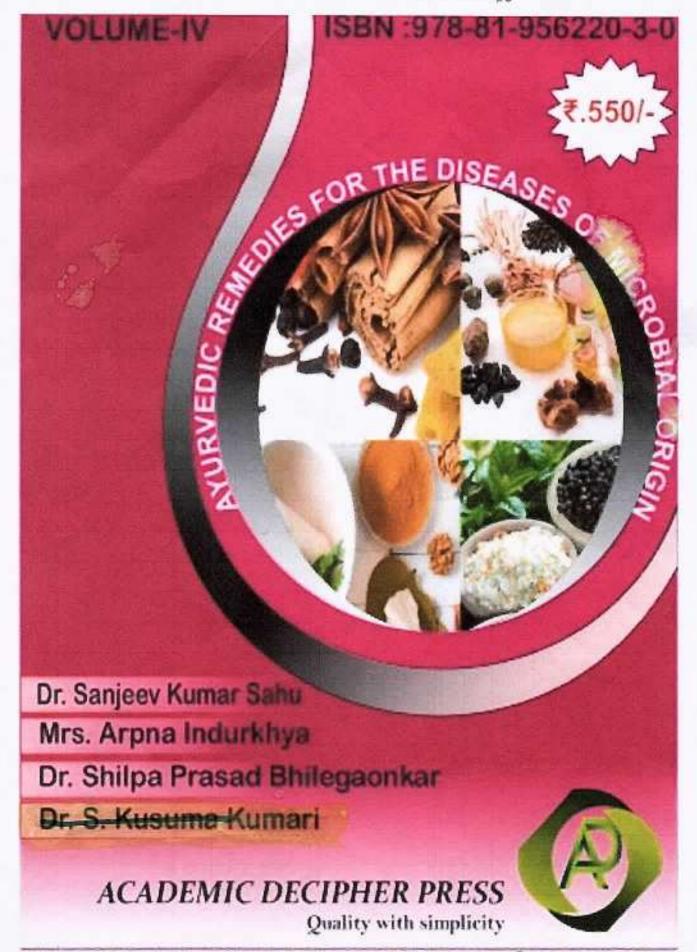
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principal

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Opp: Dupadu R.S. N.H.-44

KURNGOL-518218 (A.P.)



# AYURVEDIC REMEDIES FOR THE DISEASES OF MICROBIAL ORIGIN, VOLUME-IV

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APPLICANT NAME

1. B.V.Ramana

2. G. Nagarajan

3 . C.S.Parameswari

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TITLE OF INVENTION

ANTI-ARTHRITIC ACTIVITY OF HYDROALCOHOLIC EXTRACT OF

BAUHINIA VARIEGATA

FIELD OF INVENTION

BIOTECHNOLOGY

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## FUTURE JOURNAL OF PHARMACEUTICALS AND HEALTH SCIENCES

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## Formulation and In-vitro Evaluation of Escitalopram Oxalate Tablets by Using Super Disintegrants

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<sup>2</sup>Department of Pharmaceutics, St. Johns College of Pharmaceutical Sciences, Yerrakota, Kurnool-518360, Andhra Pradesh, India

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#### ABSTRACT



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Keywords:

Oral Disintegrating Tablets, Escitalopram Oxalate, Direct Compression Technique, Super Disintegrants Oral disintegrating Escitalopram Oxalate tablets have been formulated by direct compressing method. Escitalopram Oxalate is used as antidepressant drug and is beneficial to somebody needing dysphagia. In compatibility report there is no interaction between the drug and also the polymers. The ET1-ET9 used to be developed through direct compressing method using super disintegrants croscarmellose sodium, Hydroxypropyl Cellulose and Polacrillin potassium. All the formulations showed good flow properties. The ET9 displayed to fine results as well as varied evaluation outcomes get pleasure from Hardness, Weight variation, Disintegration time, Drug content and Dissolution profile. Stability studies were carried out with optimized formulation ET9 which was stored for a period of one and two months at  $40\pm2^{\circ}$ C temperature and  $75\pm5\%$  relative humidity for a period 2 months. There are no changes in the values up to two months, it is a stable formulations.

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#### INTRODUCTION

The concept of formulating orally tablets containing escitalopram oxalate offers a suitable and practical approach in serving desired objective of rapid disintegration and dissolution characteristics with increased bioavailability [1]. Tablets will be outlined as solid unit pharmaceutical formulations involving drug substance with or without appropriate excip-

ients and ready by squeezing or moulding methods. ODTs increase the acceptability of bitter drugs by masking their taste [2]. Escitalopram oxalate is selective serotonin reuptake inhibitors are broadspectrum antidepressants that will be useful for disorder and several other anxiousness disorders [3].

#### MATERIALS AND METHODS

Escitalopram Oxalate became purchased free of charge sample from Hetero Labs, Hyderabad; croscarmellose sodium & Hydroxypropyl Cellulose was once purchased from S.D. Fine Chemicals, Mumbai. Saccharin, Polacrillin potassium, Peppermint, Microcrystalline cellulose, mannitol, talc used to be a present sample of Bliss chemicals & pharmaceuticals India Ltd., Mumbai, India and other ingredients victimised in with Analytical grade.

#### Methodology

#### Compatibility Studies

Sample concentration in KBr must be within the lim-

its of 0.2% to 1%. The thickness of the pellet is way more than a liquid film, so sample with low concentration is required [4]. Too high concentration generally leads to difficulties in obtaining clear pellets.

#### Formulation of Escitalopram Oxalate ODTs

Accurately weight quantity of escitalopram oxalate, croscarmellose sodium, saccharin, orange, peppermint, Hydroxypropyl Cellulose and lake sunset yellow were in collaboration passed through screen no 40 (Blend-1). MCC were jointly passed through sieve no 20 (Blend-2) and magnesium stearate was additional and mixed for 10 mins [Table 1] finally compressed into tablets [5].

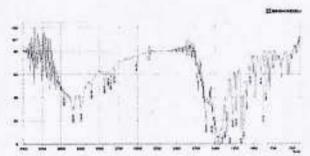


Figure 1: IR spectrum of Escitalopram Oxalate

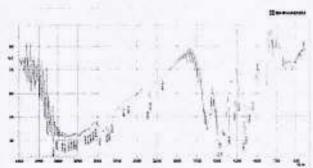


Figure 2: IR spectrum of Escitalopram Oxalate with other excipients

#### **Pre Compression Parameters**

The powdered blend was analyzed for flow properties as follows.

Angle of repose:  $\theta = \tan^{-1}(h/r)$ 

Bulk density = Weight of powder/ Bulk volume

Tapped density = Weight of powder/ Tapped volume

Carr's Index (I) = (Tapped Density - Bulk Density)/ (Tapped Density) x100

Hausner's ratio = Tapped density/ Bulk density [Table 2] [6].

#### **Post Compression Parameters**

#### Thickness

Thickness was determined for 20 pre weighed tablets of each batch using a digital vernier scale and

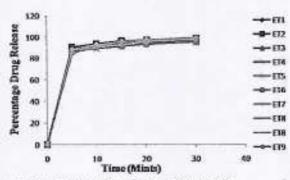


Figure 3: In-vitro Dissolution Study of Escitalopram Oxalate ODTs

the average thickness was determined in mm [7]. The tablet thickness should be controlled within a  $\pm$  5% variation of a standard.

#### Weight Variation

20 tablets were selected randomly from a batch and were individually weighed and then the average weight was calculated. The tablets meet the USP specifications if not more than 2 tablets are outside the percentage limit [8].

#### Hardness

The crushing load which is the force required to break the tablet in the radial direction was measured using a Monsanto hardness tester. The hardness of 10 tablets was noted and the average hardness was calculated [9].

#### Friability

Friability test was performed to predict the tablet ability to endure any abrasions in packaging, handling & in transport. Roche friabilator, a commonly used instrument was routine watch over friability of the tablets. 20 tablets have been reweighed from each and every batch and situated in friabillator and set to rotate at an rpm of 25 for 4 min [10].

 $Friability = \frac{(Intial\ weight\ of\ tab-Final\ weight\ of\ tab)}{Initial\ weight\ of\ tab} \times 100$ 

#### **Disintegration Time**

The disintegration test is carried out in an apparatus containing a basket rack assembly with six glass tubes of 7.75 cm in length and 2.15 mm in diameter, the bottom of which consists of a #10 mesh sieve. The basket is raised and lowered 28-32 times per minute in a medium of 900 ml which is maintained at 37°C ±1°C Six tablets were placed in each of the tubes and the time required for complete passage of tablet fragments through the mesh (#10) was considered as the disintegration time of the tablet [11].

#### **Wetting Time**

Six circular tissue papers of 10 cm diameter were

Table 1: Formulation of Escitalopram Oxalate Tablets

Excipients	ET1	ET2	ET3	ET4	ET5	ET6	ET7	ET8	ET9
Escitalopram Oxalate	30	30	30	30	30	30	30	30	30
Croscarmellose sodium	14	14	18	18	20	20	20	20	20
Hydroxypropyl cellulose	6	6	12	12	12	10	12	12	12
Polacrillin potassium	10	20	25	25	25	25	25	25	25
Saccharin	10	10	10	10	10	10	10	10	10
Orange	11	13	13	13	14	13	14	14	14
Peppermint	0	8	6	6	8	6	8	8	8
Lake sunset yellow	2	2	2	2	2	2	2	2	2
Prosolv ODT	0	0	0	0	115	75	40	0	0
MCC	153	93	95	75	0	0	0	0	0
Mannitol	10	50	55	65	10	55	85	215	215
Talc	4	4	4	4	4	4	4	4	4

Note: Quantities in mg

Table 2: Derived Properties of Escitalopram Oxalate ODTs

Parameters	ET1	ET2	ET3	ET4	ET5	ET6	ET7	ET8	ET9
Angle of Repose (θ)	47.23	36.35	33.26	31.08	40.15	37.04	30.52	28.35	27.89
Bulk Density (g.mL)	0.235	0.613	0.645	0.565	0.376	0.584	0.382	0.478	0.452
Tapped Density (g.mL)	0.412	0.738	0.722	0.665	0.538	0.705	0.434	0.518	0.502
Compressibility Index (%)	32.18	17.15	13.10	13.75	25.15	18.17	12.33	8.98	9.15
Hausner's Ratio (HR)	1.45	1.20	1.14	1.15	1.32	1.22	1.16	1.10	1.10

Table 3: Post Compression Parameters of Escitalopram Oxalate ODTs

Form. Code	Average weight (mg)	Thickness (mm)	Hardness (kg/cm <sup>2</sup> )	Friability (%)	Disintegr- ation Time (sec)	Wetting time (sec)	Drug Content (%)
ET1	248±0.1	3.52±0.1	2.6±0.3	0.28±0.2	100	190	98±0.2
ET2	247±0.3	3.56±0.7	2.4±0.5	0.18±0.4	56	108	95±0.6
ET3	248±0.4	3.69±0.4	2.3±0.6	0.20±0.6	48	86	99±0.5
ET4	247±0.6	3.78±0.6	2.3±0.2	0.15±0.2	42	40	96±0.2
ET5	246±1.2	3.49±0.3	2.2±0.3	0.55±0.7	45	110	98±0.3
ET6	245±1.4	$3.61 \pm 0.3$	2.9±0.6	0.40±0.3	28	98	95±0.7
ET7	240±1.5	3.65±0.5	2.7±0.5	0.17±0.2	20	43	98±0.5
ET8	242±1.8	3.70±0.3	3.5±0.8	0.10±0.3	16	27	97±0.3
ET9	249±0.6	3.72±0.2	3.6±0.8	0.10±0.5	18	26	99±0.2

Table 4: In-vitro Dissolution Study of Escitalopram Oxalate ODTs

Time (min)	ET1	ET2	ET3	ET4	ET5	ET6	ET7	ET8	ET9
0	0	0	0	0	0	0	0	0	0
5	89.84	90.58	87.74	86.39	88.48	87.57	85.45	88.34	84.40
10	90.36	93.84	91.93	89.15	90.36	90.49	89.58	90.48	92.56
15	94.45	96.57	93.27	91.03	92.46	91.21	92.67	92.40	95.74
20	96.98	97.24	95.05	93.27	94.05	93.29	95.69	95.75	97.34
30	97.65	98.37	96.45	95.06	96.75	95.43	97.78	97.89	99.12

Table 5: Stability study of ET9 Escitalopram Oxalate ODTs

Parameters	Initial	40°C±2°C / 75% ± 5% RH			
		1 <sup>4</sup> Month	2 <sup>nd</sup> Month		
Thickness (mm)	$3.72 \pm 0.2$	$3.72 \pm 0.2$	$3.72 \pm 0.1$		
Hardness (kp)	$3.6 \pm 0.8$	$3.6 \pm 0.5$	$3.6 \pm 0.4$		
% Friability	$0.10 \pm 0.5$	$0.10 \pm 0.2$	$0.11 \pm 0.2$		
Disintegration Time (sec)	18	18	19		
In-vitro Dissolution	99.12	99.11	99.10		

placed in a Petri dish and 10 ml of water containing amaranth dye was added to it to identify complete wetting of tablet surface. A tablet was carefully placed on the surface of tissue paper in petri dish at ambient temperature [12]. The time taken by water to reach the upper surface of the tablet and to completely wet the tablet was noted as wetting time.

#### **Drug Content**

Weighting amount containing 100mg of Escitalopram Oxalate used to be conveyed within 100ml volumetrically flask. To that 50ml consisting of methyl alcohol was additional plus sonicated to dissolve the drug plus blended completely [7]. The absorbance measured by UV spectroscopy against the blank at wavelength of 238 nm.

#### In-vitro Dissolution Studies

The dissolution test was carried out in USP Apparatus Type II (paddle) with 900 ml of 0.1 N Hydrochloric acid as the dissolution medium which is maintained at temperature  $37\pm2^{\circ}$  C. Paddle was allowed to rotate at 50 rpm and medium temperature of  $37^{\circ}$ C±0.5°C. Samples (5 ml) were withdrawn at suitable intervals, filtered and absorbance measured at 238 nm using UV-Visible Spectrophotometer [13] [Figure 3] [Table 4].

#### Stability Studies

The product obtain accelerated stableness reports at  $40^{\circ}\text{C}\pm2^{\circ}\text{C}/75\% \pm 5\%$  RH for two months [14],

#### RESULTS AND DISCUSSION

#### Compatibility Study

From drug excipient compatibility trend analysis, we referred to absence of interactions in between pure drug and excipients as shown in Figures 1 and 2.

#### Weight Variation & Thickness

The average weight of the tablets  $247 \pm 0.3$  mg to  $249 \pm 0.6$  mg and the thickness is determined by  $3.52 \pm 0.1$  mm to  $3.72 \pm 0.2$  mm [Table 3].

#### Hardness & Friability

The hardness was determined 2.2  $\pm$  0.3 to 3.6  $\pm$  0.8 kg/cm<sup>2</sup> during compression and friability for all the formulation [Table 3] varies from 0.10 $\pm$ 0.3 to 0.55 $\pm$ 0.7 %.

#### Drug Content & Wetting Time

The all the formulations was found to be  $95 \pm 0.6\%$  to  $99 \pm 0.5$  %. Wetting time was acknowledge [Table 3] to be 26 to 190 sec.

#### **Disintegration Time**

The all formulations was found to be 16 sec to 100 sec [Table 3].

#### Stability Studies

The ET9 was subjected to accelerated stability record [Table 5] as first and second months 40±2°C/75±5% RH the drugs encounter impending good.

#### CONCLUSION

Formulation ET9 showed satisfactory results with various evaluation parameters like Hardness, Weight variation, Disintegration time, wetting time, Dissolution studies and Assay. After make accelerated stableness reports the particular tablets encounter to be stable. ET9 formulation was carried out with crospovidone, Hydroxypropyl cellulose, Polacrillin potassium as super disintegrates results in good wetting time 26 seconds and disintegration time 18 seconds. All the pre compression and therefore the post compression parameters displayed to good results.

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#### **Conflict of Interest**

The authors attest that they have no conflict of interest in this study.

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