

RERDS – Centre for Pharmaceutical Research (CPR)

Sponsored by Raghavendra Educational and Rural Development Society
(Reg. No. 198/2002)



In view of developing Pharmaceutical Research in institution, RERDS constituted the “**Centre for Pharmaceutical Research (CPR)**” in the **Research and Development cell (R & D Cell)** to offer Research and Training facilities.

Preamble

- Functioning as a private non-profit organization, recognized as SIRO by DSIR in the year 2018.
- In the Year 2010, it was started as Centre for Pharmaceutical Research (CPR) as annex to Raghavendra Institute of Pharmaceutical Education and Research (RIPER), but
- From 2016, it is renamed as RERDS – Centre for Pharmaceutical Research (CPR) and functioning as independent organization with its own decentralized facility, faculty, vision and objectives vide RERDS society resolution.

Research Vision

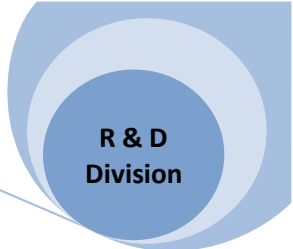
“Committed to excel in the area of basic and pharmaceutical research, critically to resolve social and public problems through technological innovations and global collaborations”.

Quality Policy

We committed ourselves to shape the basic and pharmaceutical research as translating research and innovations for a better society through global partnership and continuous improvement.

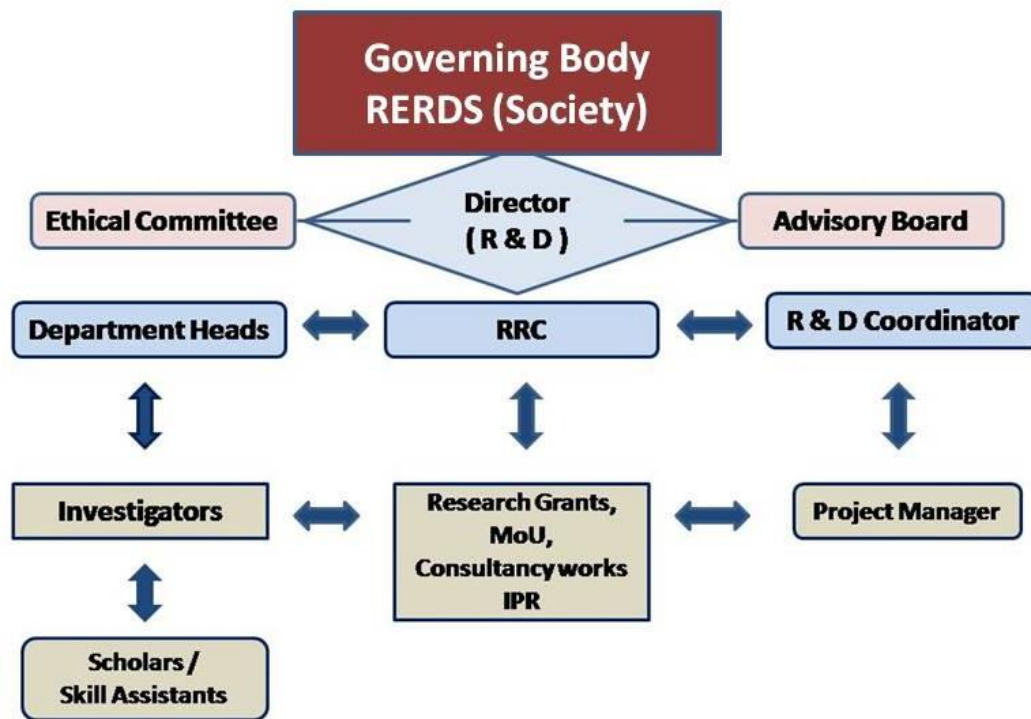
Objectives

- To perform collaborative and translational research and development for delivering new pharmaceuticals / products as preventive / curative ailments against life threatening diseases.



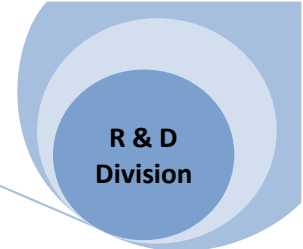
- To undertake collaborative research projects with the goal of a seamless transition of therapeutic molecules to clinical stages and beyond.
- To conduct programme / training relevant to societal needs, advancement in research techniques for the academia and industrial personnel engaged in the Quality Pharmaceutical deliverables.
- To facilitate a platform for the researchers towards their development in innovative research, collaborations, patent filing and publications.
- To frame stable platform with reputed research organization and Universities from India and abroad on productive research and product development on the context of mutual benefits.

RERDS-CPR – Organization Chart



RERDS-CPR – Research Advisory Board

Name	Designation	Address
Ex-Officio Member	Director R&D	JNTUA, Anantapur
Prof. C. Kokate	Ex Vice- Chancellor	KLE University, Belgaum, Karnataka
Prof. B. Suresh	Vice-Chancellor	JSS university, Mysore, Karnataka.
Prof N Udupa	Professor	Department of Pharmacy Management, Manipal University, Manipal, Karnataka
Prof K.B. Chandrasekhar	Vice- Chancellor	Krishna University, Machilipatnam, Andhra Pradesh
Dr. Devanna	Director and professor	JNTUA, Anantapur, Andhra Pradesh
Dr G N Sastry	Senior Scientist	Senior Scientist, IICT, Hyderabad, Telangana.
Dr Bontha Veera raju babu	Scientist F	Indian Council for Medical Research, New Delhi.
Dr U Ramesh	Scientist	Indian Institute of Chemical Technology (IICT), Hyderabad.
Dr Azger Dusthacker VN	Scientist – Bacteriologist	National Institute of Research in Tuberculosis (NIRT), Chennai.
Dr KVSR Prasad	Retired Professor	Professor in pharmacology, Mahila University, Tirupati, Andhra Pradesh.
Dr A Pramila Rani	Principal	University College of Pharmaceutical Sciences, Acharya Nagarjuna University, Guntur Dist., Andhra Pradesh.
Dr Dina Nair	Scientist (Medical)	National Institute of Research in Tuberculosis (NIRT), Chennai
Dr CH V Rao	Principal Scientist	Pharmacology Division, National Botanical Research Institute, India
Dr Amit Tiwari	Principal Scientist	Cancer Biology, The University of Toledo, USA
Dr. Sarangapani	Former Professor	Kakatiya University, Warangal, Telangana.
Dr T K Ravi	Principal & Professor	College of Pharmacy, SRIPMS, Coimbatore, Tamil Nadu.
Dr H G Shiva Kumar	Principal & Professor	College of Pharmacy, JSS University, JSS University, Mysore, Karnataka.



Animal Ethical Committee approved by CPCSEA, Govt. of India (Twice in a Year)

Name and designation	Address	Nominated as
Dr. N Venakata Rami Reddy Coordinator and professor	Dept. of zoology, Yogi Vemana University, Kadapa, AP	Main Nominee
Mr. Md. Sultan Ali basha Associate Professor,	Safa college of Pharmacy, Kurnool, AP	Link Nominee
Dr. R G Prakash	Jawaharlal centre for Advanced and scientific research (JNCASR), Bangalore.	Scientist from outside the institution
Dr. Rosa J Samuel In-charge animal facility	Indian Institute of science, Bangalore	Social aware Nominee
Dr. Y. Padmanabha Reddy Principal	Raghavendra Inst. of Pharm. Education and Research	Biological Scientist (Chairperson)
Dr. P. Ramalingam Director, R&D	Raghavendra Inst. of Pharm. Education and Research	Scientist from different discipline (Member secretary)
Dr. B. Srinath, Professor	Raghavendra Inst. of Pharm. Education and Research	Scientist from different discipline
Dr. K. Somasekhar Reddy Asso. Professor	Raghavendra Inst. of Pharm. Education and Research	Scientist In-charge of Animal Hose Facility
Dr. R. Sarada	Govt. Veterinary Hospital, Anantapur	Veterinarian

RERDS-CPR – Research Review Committee

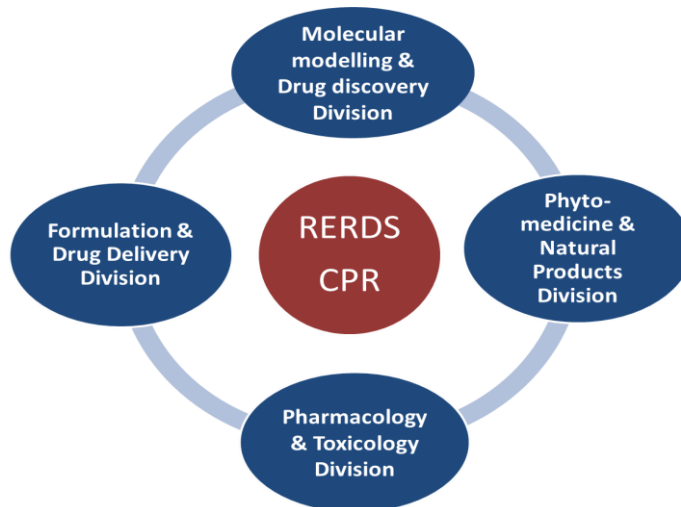
With reference to the promotion of quality research work in the institution, the following members are nominated as members of the reconstituted Research Review Committee with their respective position. This committee shall be effective from 22.10.2020 to till further orders

S. No	Name	Designation	Nominated Position
1	Dr. Y. Padmanabha Reddy	Principal	Chairman
2	Dr. P. Ramalingam	Director (R&D Division)	Secretary
3	Dr. Ch. Pavan Kumar	Research Co-ordinator	Coordinator
4	Dr. K. Ramakrishna Reddy	Director (Academics)	Member
5	Dr. H. Abdul Ahad	Professor	Member
6	Dr. M. Vijaya Jyothi	Professor	Member
7	Dr. C. Haranath	Asso. Professor	Member
8	Dr. K. Somasekhar Reddy	Asso. Professor	Member
9	Dr. K. Vinod Kumar	Asso. Professor	Member
10	Dr. B. Pradeep Kumar	Asso. Professor	Member
11	Dr. Vinod Kumar Nelson	Asso. Professor	Member

Note:

- The above committee shall also be acting as Doctoral Committee for the review of PhD works / or any research matters / whenever required by the Principal / University.
- Research Advisory Board (RAB) shall be assisting the RRC, whenever required.
- Meetings and resolutions can be made when 70% of members are present.

Various Units / Research Division under RERDS-CPR



Research Team

Name & Qualification	Designation
Dr. Y. Padmanabha Reddy., <i>M. Pharm., PhD., FIC</i>	President / CEO, RERDS - CPR
Dr. P. Ramalingam., <i>M. Pharm., PhD</i>	Director, RERDS - CPR
Dr. K. Somasekhar Reddy., <i>M. Pharm., PhD</i>	Head, Pharmacology & Toxicology Division
Dr. M. Vijaya Jyothi, <i>M. Pharm., PhD</i>	Head, Molecular Modelling & Drug Discovery Division
Dr. Vinod Kumar Nelson., <i>M. Pharm., PhD</i>	Head, Phytomedicine & Phytochemistry Division
Dr. Hindustan Abdul Ahad, <i>M. Pharm., PhD., FAGE</i>	Head, Formulation & Drug Delivery Division
Dr. B. Pradeep Kumar., <i>M. Pharm., PhD</i>	Scientist, Pharmacological screening and animal ethical clearance
Mr. C. Naresh Babu., <i>M. Pharm.,</i>	Research Associate
Mr. E. Bhargav, <i>M. Pharm.,</i>	Research Associate

Mrs. B. Nagasubha, <i>M. Pharm.</i> ,	Research Associate
Mr. P. Chiranjeevi, <i>M. Pharm.</i> ,	Research Associate
Mrs. S. Triveni, <i>M. Pharm.</i> ,	Research Associate
Mrs. Y. Sravani, <i>M. Pharm.</i> ,	Research Associate
Dr. G. Neelima, <i>Pharm. D</i>	Research Associate
Mr. S. Mahaboob Basha., <i>B.Sc, D. Pharm.</i> ,	Purchase and Store keeping

Consultancy /Internal Revenue Policy with reference to the promotion of consultancy works, the following are the framed internal revenue / Consultancy Policies, till further notice.

- There should be letter from customer (Researchers /PhD scholars/Industry/Institution) addressed to the principal.
- The Principal shall forward the letter to R & D director.
- R&D Division shall fix the charges as per our norms in consultation with Heads.
- Then copy of the letter and requirement shall be forwarded to the Concern Heads. Then Head shall allot the work to Skill assistants.
- Once the report is ready, the duly signed report shall be forwarded to R&D.
- The Report will be dispatched / issued to applicant, once the payment is cleared.
- All the details of Reports / amount will be entered in register / duly counter signed by principal.
- The copy of facility request letter shall also be documented in Concern department.

Term & Conditions

- There should not be any hidden work /unethical report to customer without the knowledge of Head & R&D Director. In such cases, serious action will be executed at the discretion of Principal.
- If any faculty/Scholars invite consultancy work, 10% of the total cost charged will paid as Reward.

Research Activity – Ethical Clearance Procedure

The following shall be the procedure for conducting experiments on Animals /Human subjects,

- Study involving Human /Animal subjects should not be initiated until the ethical clearance is issued by R&D Division.
- There shall be only one Animal ethical committee meeting and One Human Ethical Review Board meeting during the one academic year (July 1st to June 31st).
- However, in case of emergency, the protocol may be mailed to Nominee and the decision is at the discretion of Chairman and Govt. Nominee.
- During Ethical clearance meeting, the principal investigator / Co-investigator / Students must be available to defend the queries.
- All investigators must give proposal presentation and submit the copy of PPT for signing along with the prescribed format of application.
- All UG Projects / experiments should be designed in such a way that no animal is allowed to sacrifice.
- Animals will be allowed to dissect only in PG / Granted Projects.
- The copy of animal ethical committee approval letter must be submitted to pharmacology department to touch /use animals.
- In case of human subjects, interventions should be as per the directions of ethical committee and should not violate GLP / GCP.

Indent of chemicals / supply of chemicals to Research

(Applicable for: M. Pharm / B. Pharm Projects, Grants)

With reference to the promotion of research works, the following are the framed Policies, till further notice.

- Step 1** A student / scholar shall prepare a list of chemicals for their research along with the research title and protocol number (if) and get signed by their supervisor
- Step 2** The signed letter shall be forward to the R&D through HOD with remarks, HOD should write the comments on chemicals if it is project specific, and its importance/ if belongs to consultancy/funded.
- Step 3** The R&D division will forward the letter with the comment to the concern section through Principal / Academic coordinator. The copy the letter shall be retained by the HOD.
- Step 4** The HOD shall ask concern lab assistant to submit the Indent for the same in prescribed format.
- Step 5** The Lab assistant shall follow up with store keeper for placing and procuring chemicals.

Step 6 Once the chemicals are received from the store, Lab assistant shall enter in their department stock register / distribution register.

Step 7 Then chemicals shall be supplied to students /scholars, Student shall hold the responsibility of submitting the unused chemicals to lab assistant with utilization record /job record.

NOTE:

- No students are allowed in the purchase and permission process.
- If any project specific chemicals, R&D and HOD shall decide to supply or not to supply.
- In case research/project belongs to consultancy / UGC/AICTE /etc funded, all chemicals shall be supplied by the institute Plagiarism Policy.

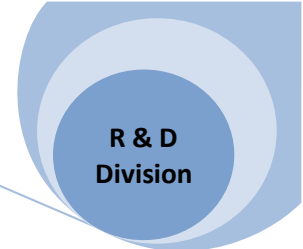
Applicable to	B. Pharm Project book, M. Pharm Dissertation book, Pharm D Clerkship book & Internship book PhD thesis,
Reference	As required by JNTUA, other Regulatory systems
% Plagiarism allowed	B. Pharm (up to 40%) M. Pharm / Pharm D as per JNTUA Norms (up to 30%) For PhD it may change depends on university.

Procedure:

- With reference to the above cited information regarding plagiarism policy, I request all faculty members TO SIGN THE RESEARCH REPORT only after obtaining plagiarism report from R&D Division, RIPER.
- The student/Scholar shall submit the document (word document) in a USB /Pen-drive to R&D COORDINATOR for plagiarism report. See that the document is EXCLUDED from contents like, reference, Index, acknowledgement, definitions, abbreviations, list of tables, list of figures, and certificates.
- The certificate of plagiarism will be issued by R&D and need to be enclosed in dissertation /thesis/project/internship/clerkship books

Instructions to reduce plagiarisms

- Concise the introduction to 10-15 pages only, but focus on importance, need, challenges, risk, applicability, current trends based write up relating the area of your research.



- Definitions and abbreviations may be added as annexure, which do not need plagiarism.
- Compile the content from several resources.
- Include pictures, graph, images wherever possible instead a paragraph explanation.
- Rewrite all text with change in phrase, verb, and sentence forms.
- Literature – do not paste abstract, make it table form, or write 3-5 sentence on each literature.
- Try to arrange flow chart / pert chart based procedure in the methodology/experimental part.
- Result and discussion should be own written.
- Do not copy any content from old research report.

RERDS-CPR Infrastructure

Name of the facility	Area
Director office (RERDS-CPR) /Discussion Room	430 sq ft
Molecular Modelling & Drug Discovery Laboratory	968 sq ft
Sophisticated Analytical Instrumentation Facility	1022 sq ft
Pharmacology & Toxicology Laboratory	807 Sq ft
Phytomedicine & Phytochemistry Laboratory	807 Sq ft
Central facility – DST FIST supported	807 Sq ft
Formulation & Drug Delivery (Pilot Plant) Laboratory	914 sq ft
CPCSEA Approved Animal House	753 Sq ft
Store Room	355 Sq ft
Library	600 Sq. Ft

1. Major Equipment /facility – Molecular modelling & Drug Discovery Laboratory

Name of the facility	Make	Number
Molecular Docking software	Schrodinger	01
Toxicity Testing tool (ADMET predictor)	Stardrop – Derek Nexus	01
Rotary evaporator	Aditya	01
Rotary Evaporator	Buchi	01
Parallel Synthesizer	Radleys 12 plus	01
Vacuum dryer	Thermo	01
Hot plates	Remi	02
Hot air Oven	Remi	02
TLC plate /assembly	Borosilicate	Adequate
Column chromatography for purification	Borosilicate	02

Current Research areas

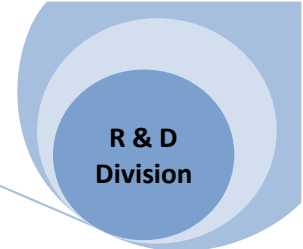
- Synthesis & Purification of organic molecules
- Study of Physicochemical properties
- Molecular Docking studies
- ADMET prediction – Lead Optimization
- Design of Experiments by Quality by Design

2. Major Equipment /facility – Formulation and Drug Delivery (Pilot Plant) Laboratory

Name of the facility	Make	Number
Rotary Tablet Machine (GMP Model)	Rimek	01
Dissolution Apparatus (Oral Delivery)	Electro Lab	01
Diffusion cell Apparatus (Transdermal Delivery)	Orchid	01
Disintegration Apparatus	Electro Lab	01
Brookfield Viscometer	Amkette	01
Nano particle and Zeta potential Analyser	Horiba	01
All purpose Equipment (Coating, Granulator, Mixer)	Orchid	01
Moisture Analyser	Fabricated	01
Tray dryer	Thermo	01
Double cone blender	Remi	05
Hot air Oven	Remi	02
Rota evaporator	Borosilicate	01
HPLC	Elico	01
UV-Visible Spectrometer	Shimadzu	01

Current Research areas

- Development and characterization of nano formulations by applying Quality by Design (QbD) principles for various objectives like solubility & stability enhancement of API, targeting to various organs.
- Design and fabrication of various types of tablets to tailor the drug release.
- Design and fabrication of drug delivery systems to treat cerebral malaria and cancer.



3. Major Equipment /facility – Sophisticated Analytical Instrumentation Facility

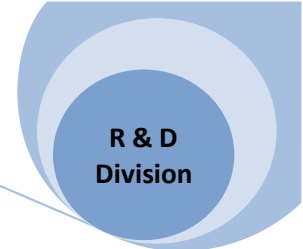
Name of the facility	Make	Number
HPLC (Binary Pump with PDA detection)	Agilent	01
HPLC (Isocratic with UV-VWD)	Agilent	01
Flash LC System	Analyx	01
FT-IR (KBR & ATR techniques)	Bruker	01
GC-FID	Bruker	01
UV-Visible Double Beam Spectrophotometer	LAB India	01
ELISA Reader	Thermo Scientific	01
Lyophilizer	Cintex	01
Environmental Chamber (Stability Studies)	REMI	01
Cooling Incubator	REMI	01
pH meter	Elico	02
Conductivity meter	Elico	01
Karl Fisher Auto titrator	Elico	01
Colorimeter	Elico	01

Current Research areas

- Analytical method development by using HPLC, GC & UV-Vis spectrophotometer.
- Stability studies for pharmaceuticals and dosage forms by HPLC
- Impurity profiling and impurity characterization by HPLC
- Spectral studies by using FT-IR & UV spectroscopy.
- Analytical QbD

4. Major Equipment /facility – Pharmacology & Toxicology Laboratory

Name of the facility	Make	Number
Semi Auto Analyzer	Erba	01
Digital Plethysmometer	Inco	01
Digital Physiograph	Inco	01
Tissue Homogenizer	Remi	01
Swim Test Apparatus	Inco	01
Metabolic cage	Inco	01
Actophotometer	Inco	01
Pole Climb Response Apparatus	Inco	01
Digital Thermometer	Inco	01



Digital Rotating Drum	Orchid	02
Digital Organ Bath	Orchid	02
Centrifuge	Remi	01
Elevated Plus maze	Fabricated	01
Hole Board	Fabricated	01
Stair Case	Fabricated	01
Y - Maze	Fabricated	01

Current Research areas

- Cancer,
- Neurodegenerative disorders,
- Behavioural diseases,
- Gastrointestinal diseases,
- Autoimmune diseases,
- Cardio metabolic syndrome,
- Heamatological diseases,
- Inflammatory diseases,
- Infectious diseases.

5. Major Equipment /facility – Phytomedicine & Phytochemistry Laboratory

Name of the facility	Make	Number
Soxhlet Apparatus	Borosilicate	02
Clevenger's Apparatus	Borosilicate	04
Column Chromatography	Borosilicate	02
TLC	Mason technology	01
UV Cabinet	Thomas scientific	01
Rotavap (Shared)	Buchi	01
Hot air oven	Remi	01
Flash LC System (Shared)	Analyx one	01

Current Research areas

- Extraction of Phytochemical constituents from plant sources.
- Preliminary identification tests
- Isolation or Separation of active constituents