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Year of Publication – 2020

S. No.	Name of the teacher	Title of the book/chapters published	Name of the conference
1	Dr. A. Sailaja	Development of nano particle drug delivery system for Non-steroidal Anti-Inflammatory agents and their applications	
2	Dr. J. Archana		Pharmacy and Health Care: Paradigm Shift From Traditional Knowledge to Modern Techniques” on 19th to 20th February,2020 at St Paul's College of Pharmacy, Hyderabad.
3	Dr. Syeda Nimrah Fatima	Clinical Research-essentials of Drug Development And Clinical Trails: Inform Consent Process (Book Chapter)	
4	Dr. Bayya Subba Rao	Pharmaceutical Research Methodology and Biostatistics: Theory and Practice	

Total Books/Chapters/Conference : 04

M. S. Kanth

PRINCIPAL
RBVRR Women's College of Pharmacy
(CC No: 1706)
Barkatpura, Hyderabad-500 027 (TS)

Development of nano particle drug delivery system for Non-steroidal Anti-Inflammatory agents and their applications

Nano particle drug delivery system

DR. KRISHNA SAILAJA ABBARAJU



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This is to certify that Dr./Mr./Ms. J. Arulana of
RBVRR Women's College of Pharmacy has participated/presented a poster/oral presentation
entitled Bioanalytical method development & validation for estimation of empagliflozin in rat plasma using HPLC
and Health Care: A Paradigm Shift from Traditional Knowledge to Modern Techniques
organized by St.Pauls College of Pharmacy, Hyderabad on 19th & 20th February 2020

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Co-Convenor

(Signature)
(Dr.B.Chandra Shekar)
Convenor



Editors

Mohammad Gayoor khan
Dr. Umama Yezdani
Dr. Hani Alotheid
Hari Baskar Balasubramanian

Essentials Of Drug Development And **Clinical** Trials

FIRST EDITION
CLINICAL RESEARCH



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BOOK: CLINICAL RESEARCH-ESSENTIALS OF DRUG DEVELOPMENT AND CLINICAL TRIALS

CHAPTER: INFORM CONSENT PROCESS

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Pharmaceutical Research Methodology and Bio-Statistics

Theory and Practice

Bayya Subba Rao

Subba Rao Bayya.



6855

SUBB-6855

$$\text{Standard deviation} = SY = \sum (Y - \bar{Y})^2$$

$$\text{Standard deviation} = \frac{SY}{N} = \frac{\sum (Y - \bar{Y})^2}{N}$$

Standard deviation can be derived as follows:

$$\text{Standard deviation} = SY = \sum (Y - \bar{Y})^2$$

$$= \sum (Y^2 - 2Y\bar{Y} + \bar{Y}^2)$$

As mean (\bar{Y}) is a constant, the above equation can be re-arranged as follows:

$$SY = \sum Y^2 - 2\bar{Y} \sum Y + \sum \bar{Y}^2$$

As $\sum Y = N\bar{Y}$, then substituting the value in the above

$$SY = \sum Y^2 - 2\bar{Y} \cdot N\bar{Y} + \sum \bar{Y}^2$$



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J9/6
P.D

Pharmaceutical Research Methodology and Bio-Statistics

Theory and Practice

"*Pharmaceutical Research Methodology and Bio-Statistics: Theory and Practice*" is aimed in understanding the fundamental concepts of developing a research bent of mind by careful planning, execution, collection of data and analyzing for statistical significance. The book is aimed at B. Pharm, Pharm D, Pharm D (PB), M. Pharm, allied course students, researchers at the academic and industry levels, Ph. D scholars, policy makers, regulators etc.

Key Features:

- Exclusively relating to pharmaceuticals
- Conventional English
- Distinguishing statistics and bio-statistics
- How to identify a problem, plan for research and execute the idea
- Chemical abstract literature search
- Anatomy of a research paper
- Compare and contrast of research proposal, research report, research paper, patent document, synopsis
- Concept of meta-analysis to resolve research ambiguities
- Classification of clinical study designs
- Approaches of developing a research methodology
- Abstract scaling concepts and techniques for developing questionnaire
- Data collection, cleansing, presenting
- How to overcome missing data
- Parametric distributions - binomial, poisson, normal, chi-square, student 't', F distributions
- Role of Type I and Type II errors, Power, sample size, confidence level, confidence interval, confidence limits
- How to judge whether data upon analysis is statistical significant or not
- Developing hypothesis as null, alternate and how to draw conclusion after conducting suitable statistical test
- Non-parametric statistical test - Run, Sign, Wilcoxon Signed rank, Wilcoxon rank sum tests
- Parametric, Non-parametric ANOVAs (1-way, 2-way, cross over, 3-way)
- Step wise Parametric and non-parametric problem solving
- Statistical softwares like SPSS, SAS, Minitab, Epi-Info with screenshots
- Applications of linear regression and correlation coefficient relating to pharmaceuticals
- Fundamental concepts of book keeping, accountancy, emphasizing on making entries in journal and ledger
- Basic terminology of epidemiology
- Inventory control, role of computers, parenteral Admixture
- Developing a management report
- Question bank

About the Author

Bayya Subba Rao completed both B. Pharm and M. Pharm from College of Pharmaceutical Sciences, Manipal. He completed P.G.Diploma in Patent Laws from NALSAR University of Law, Hyderabad. He was awarded with Doctorate in Pharmaceutical Sciences degree from Andhra University, Visakhapatnam.

During his 21 years of career he was involved in basic research, process research, teaching, government service at various levels as scientist-II, research chemist, lecturer, associate professor, I/C Principal, patent analyst. He has to his credit over 35 research, review articles published in National Journals and has five copyrights.

During his career he was involved in synthesis of new chemical entities, synthesis of drug metabolites and chemical process developments. He developed a process that was later patent applied and abandoned.

He was involved in teaching Bio-Statistics and research methodology relating to pharmaceuticals to students at the B.Pharm, Pharm.D and M.Pharm levels.

The other academic related books authored were Practical Pharmaceutical In-organic Chemistry, Intellectual Property Rights in Pharmaceutical Industry: Theory and Practice.



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