RBVRR WOMEN'S COLLEGE OF PHARMACY

& 3-4-343, Barkatpura, Hyderabad 500027 (T.S), India

Accredited by NAAC, Approved by PCI, Affiliated to Osmania University

Recognised Under Section 2(f) of the UGC Act 1956

INSTITUTION'S INNOVATION COUNCIL
(Ministry of Education Initiative)

Organizing

OSMANIA UNIVERSITY

ACCREDITED WITH GRADE B++ NAAC

CERTIFICATE COURSE

ON

Pharmacogenomics and Personalized Healthcare

25th June – 3rd July, 2026

Registration Fee ₹300

Registration on or before 24th June, 2026

ACCOUNT DETAILS

Account No. : **039710011906455**

IFSC CODE: **UBIN0803979**

Bank Name: **UNION BANK OF INDIA**

Branch: **NARAYANGUDA BRANCH, HYD.**

For Registration Scan here

Target Audience: Pharm.D Students

AWARDS & REWARDS

Certificates for all the participants and cash prizes for outstanding performance

For Queries, Contact:

+91-8247288995

Email: pharmacypracticedept1@gmail.com

About RBVRR Women's College of Pharmacy

RBVRR Women's College of Pharmacy, established in 2006 under the Hyderabad Mahila Vidhya Sangam, is driven by the visionary leadership of its Founder Principal, Prof. M. Sumakanth. The college is dedicated to empowering girl students through education and offers spacious classrooms, state-of-the-art laboratories, a well-equipped seminar hall, a conference room, and a library stocked with a wide range of the latest textbooks, reference materials and a digital library.

The college is offering the following programmes:

- B. Pharmacy (100),
- Pharm.D (32)
- M.Pharmacy (Pharmaceutics, Pharm. Analysis and Pharmacology)

VISION:

To be a National Women Pharmacy Professional leader in transforming lives through innovative, vigorous and compassionate approach to Pharma education.

MISSION

RBVRRWCP preparing and empowering girl students by providing continuous awareness programmes to succeed in changing world apart from regular curriculum.

AIM OF THE CERTIFICATE COURSE

This course aims to provide a comprehensive understanding of pharmacogenomics and personalized medicine, emphasizing how genetic variations influences drug response, disease susceptibility, and therapeutic outcomes. It introduces fundamental concepts of human genetics, inheritance patterns, epigenetics, genome organization, and population diversity, and explains their relevance to clinical practice.

It also focuses on the clinical application of pharmacogenomics through biomarkers, molecular diagnostics, SNP analysis, gene expression studies, and genomic technologies such as NGS and microarrays. Learners will understand how genetic information can guide individualized drug selection and dosing, while also examining the ethical, regulatory, economic, and commercial aspects of precision medicine.

Course: Pharmacogenomics and Personalized Healthcare

Value Added Course

SYLLABUS

Code: **Total No. hours: 30**

Unit 1 : Fundamentals of Pharmacogenomics 8 hours

Concepts of Pharmacogenomics. Genetic diversity of population with special reference to India. Genetic influences on medical disorders, epigenetics, non-genetic factors influencing phenotypes. Inheritance patterns. Genome organization. Linkage analysis. medical application of genetics in diagnosis. treatment and prevention of disease. Hardy-Weinberg equilibrium. Single gene disorders and Mendelian patterns of inheritance. Genetics of therapeutic targets and gene based targets. Pharmacogenomics of cytochrome P450 enzymes. transporter enzyme and receptors. Ethnic differences in drug response.

Unit 2: Applied Pharmacogenomics 5 hours

Single Nucleotide Polymorphisms and other genetic variations, their impact on clinical medicine and clinical outcomes. Association studies in Pharmacogenomics. Linking NGS/Microarray/other technologies to bedside, Analyzing gene mutations.

Unit 3: Biomarkers 5 hours

Biomarker discovery, turning biomarkers into drug targets. Molecular Diagnostic methods in Pharmacogenomics. Role of Pharmacogenomics in Drug development. Modern Techniques in Genetics. Tools for pharmacogenomics analysis, Single Nucleotide Polymorphisms, Gene expression analysis.

Unit 4: Personalized Medicine in Clinical Practice 7 hours

Personalized medicine approach for prescribing NSAIDS, antiepileptics, antidiabetics, antipsychotics, antidepressants, cardiovascular drugs, analgesics drugs, hypnotics, anxiolytics drugs, gastrointestinal drugs, immunosuppressants and anticancer drugs. Genetic counseling. Medical liability for Pharmacogenomics.

Unit 5: Commercial and Regulatory Aspects of Pharmacogenomics 5 hours

Ethical issues of personal genetic information and individualized medicine. Economics of Pharmacogenomics testing in clinical practice. Regulatory guidelines involving Pharmacogenomics. Intellectual property and commercial aspects of Pharmacogenomics.

Course Outcomes

Upon successful completion of the course, learners will be able to:

1. Explain the principles of pharmacogenomics, genetics, and genetic variations influencing drug response.
2. Analyze genetic polymorphisms and their impact on disease susceptibility and therapeutic outcomes.
3. Apply genomic technologies, molecular diagnostics, and biomarkers in pharmacogenomic research and clinical practice.
4. Utilize pharmacogenomic information to support personalized medicine and optimize drug therapy.
5. Evaluate the ethical, regulatory, and commercial aspects of pharmacogenomics and precision healthcare.

PATRON

Prof. K.Muthyam Reddy
Hon.Secretary & Correspondent,
RBVRRWCP

CONVENOR

Prof. M. Sumakanth
Principal,
RBVRRWCP

PROGRAMME CO-ORDINATOR

Prof. M. Sumakanth
Principal & HOD
Department Of Pharmacy Practice
RBVRR Women's College of Pharmacy

ORGANISING COMMITTEE

Dr. M Vidhya
Assistant Professor
Dept. of Pharmacy Practice

Dr. Ayesha Fatima
Assistant Professor
Dept. of Pharmacy Practice

Dr. Najiya Fatima
Assistant Professor
Dept. of Pharmacy Practice

OUR SPEAKERS

Dr. A. Srinivas
Associate Professor
Department of Genetics
Osmania University
Hyderabad

Prof. Sumana Sen
Head of Department
Department of Pharmacology
Apollo Institute of Medical Sciences and Research, Hyderabad

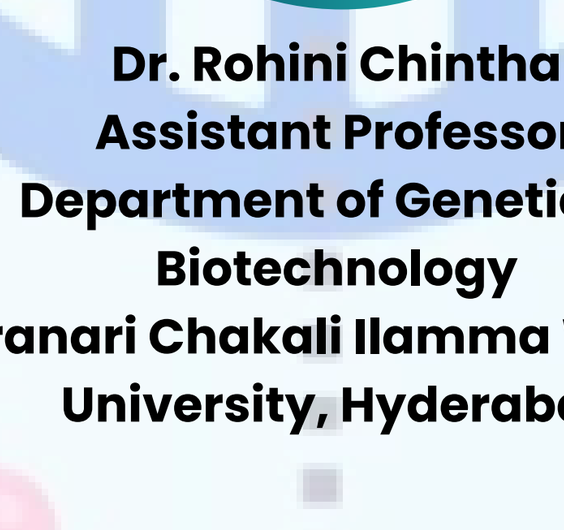
Dr. Sabitha Yadam
Founder & Research Director
Ciencia Life Sciences
Hyderabad

Mrs. Priyanka Chinthakindi
Associate Professor
Department of Pharmacology
Dr. VRK College of Pharmacy
Jagital, Rangareddy

Dr. Rohini Chintha
Assistant Professor
Department of Genetics & Biotechnology
Veeranari Chakali Ilamma Women's University, Hyderabad

Dr. Rahul Gopal
Founder & CEO
Medclinigen Academy
Hyderabad

Dr. Rajeev Arab
Rheumatologist
IICT Hospital
Habsiguda, Hyderabad



Prof. M. Sumakanth
Principal
RBVRRWCP
Hyderabad

Prof. M. P. Kusuma
Department of Pharmaceutics
RBVRRWCP
Hyderabad

PROGRAMME SCHEDULE

Date	Morning Session 9:30 Am - 12:30 Pm	Afternoon Session 1:30 Pm - 4:30 Pm
25-06-2026	Inaugural Session Speaker: Dr. A. Srinivas Topic: Genetic variations in clinical medicine, translating SNP discovery, Pharmacogenomic association and genemic technologies into personalized healthcare	
27-06-2026	Speaker: Mrs. Ch Priyanka Topic: Biomarker discovery, turning biomarkers into drug targets.	Speaker: Mrs. Ch Priyanka Topic: Role of Pharmacogenomics in Drug development
29-06-2026	Speaker: Dr. Rohini Chintha Topic: Concepts of Pharmacogenomics. Genetic diversity of population with reference to India. Genetic influences on medical disorders, epigenetics, non-genetic factors influencing phenotypes. Inheritance patterns.	
30-06-2026	Speaker: Prof. M. P. Kusuma Topic: Genome organization. Linkage analysis. Hardy-Weinberg equilibrium. Gene expression analysis.	
01-07-2026	Speaker: Prof. Sumana Sen Topic: Ethical issues of personal genetic information and individualized medicine. Personalized Medicine in Clinical Practice	Speaker: Dr. Sabitha Kotra Topic: Personalized Medicine in Clinical Practice: Transforming Healthcare through Precision Treatment
02-07-2026	Speaker: Dr. Rahul Gopal Topic: Personalized medicine approach for prescribing NSAIDs, antiepileptics and antidiabetics	Speaker: Prof. M. Sumakanth Topic: Personalized medicine approach for antipsychotics, antidepressants and anxiolytics drugs
03-07-2026	Speaker: Dr. Rajeev Arab Topic: Personalized medicine approach for prescribing DMARD, immunosuppressants and anticancer drugs.	Valedictory (2 Pm Onwards) Followed by Assessment