



C. V. Raman
Global University
ODISHA BHUBANESWAR INDIA



6-days National Webinar on
**DIGITAL FRONTIERS IN
PHARMACEUTICAL RESEARCH
AND INNOVATION**

18th - 23rd August, 2025

In Collaboration with



Supported by
Atal Innovation Mission
NITI AAYOG

AIC - C.V. Raman
College of Engineering
Foundation

C G U - O D I S H A

Organized by:

FACULTY OF PHARMACY
C. V. Raman Global University, Odisha

www.cgu-odisha.ac.in

About The Webinar

This webinar aims to explore the transformative impact of digital technologies on pharmaceutical research and development. As the pharmaceutical industry enters a new era of innovation, the convergence of Pharma 4.0 technologies—such as automation, artificial intelligence, machine learning, and big data analytics—with computational drug design tools is revolutionizing the way new therapeutics are discovered and developed. This seminar will bring together experts from academia, industry, and technology sectors to discuss the latest advancements, case studies, and practical applications of digital tools in drug discovery. It serves as a knowledge-sharing platform to bridge the gap between traditional research practices and emerging digital solutions that are reshaping biopharmaceutical innovation.

Objective of the Webinar

The primary objective of the webinar is to introduce participants to the foundational concepts of Pharma 4.0 and its transformative applications in pharmaceutical research. It aims to highlight the growing role of computational intelligence—including artificial intelligence, machine learning, and in silico modeling—in accelerating various stages of drug discovery and development. By fostering interdisciplinary dialogue, the seminar seeks to promote the integration of digital technologies and bioinformatics to enhance the efficiency, accuracy, and cost-effectiveness of pharmaceutical R&D processes. Furthermore, it intends to showcase practical case studies and collaborative efforts that exemplify the successful adoption of digital tools in biopharma. The seminar also emphasizes the importance of strengthening industry-academia partnerships to overcome challenges and drive innovation in this rapidly evolving field. Lastly, it aims to raise awareness about the regulatory frameworks and ethical considerations that must be addressed when implementing digital transformations in pharmaceutical science.

Broad Theme

- ▶ **Pharma 4.0 Framework in Research and Development**
Automation in lab processes and manufacturing
Use of IoT, robotics, and smart sensors in pharma labs
Real-time monitoring and digital twin technology
- ▶ **Artificial Intelligence & Machine Learning in Drug Discovery**
AI/ML for target identification and lead optimization
Predictive modeling for drug efficacy and toxicity
AI-driven hypothesis generation and clinical trial design
- ▶ **Computational Drug Design and In Silico Methods**
Molecular docking, dynamics simulations, and QSAR models
Structure-based and ligand-based drug design
Virtual screening and de novo drug design
- ▶ **Bioinformatics & Big Data in Biopharma**
Omics data integration (genomics, proteomics, metabolomics)
Data mining and network pharmacology
Cloud computing and data pipelines in pharmaceutical research
- ▶ **Digital Transformation in Clinical Research**
e-Clinical trials and remote monitoring technologies
Wearables and patient data analytics
AI-powered pharmacovigilance and post-marketing surveillance

Scientific Sessions

DAY-1



Dr. UMA RANJAN LAL
Assistant Professor

National Institute of Pharmaceutical
Education & Research (NIPER)
S.A.S. Nagar, Mohali

Date: 18.08.2025

DAY-2



Dr. ASHUTOSH PAREEK
Professor

Department of Pharmacy
Faculty of Life sciences, Banasthali
Vidyapith, Rajasthan India

Date: 19.08.2025

DAY-3



Dr. D SREEDHAR
Professor & Head

Department of Pharmaceutical
Regulatory Affairs and Management
Manipal College of Pharmaceutical
Sciences, MAHE, Manipal

Date: 20.08.2025

DAY-4


PROF. (Dr.) V. R. PEDIREDDI
Professor
School of Basic Sciences
IIT, Bhubaneswar

Date: 21.08.2025

DAY-5


Dr. VIDHI SHAH
Assistant Professor
Department of Pharmaceutics,
L. M. College of Pharmacy,
Ahmedabad- Gujarat

Date: 22.08.2025



Dr. RAKESH KUMAR PATHAK
Associate Professor
Chemical Sciences,
IISER Berhampur, Odisha

Date: 22.08.2025

DAY-6


Dr. M. VIJAYKUMAR
AGM-R&D (Herbal division)
Apex laboratories pvt ltd R&D Center
B-59, SIPCOT Industrial park,
Kancheepuram-602117, TamilNadu

Date: 23.08.2025

About CGU At A Glance

Established in accordance with the Odisha Act 01 of 2020, C. V. Raman Global University, Odisha (CGU, Odisha) introduces students to new and innovative ways of learning. Although this University is newly born, it takes pride in its rich heritage. As a multidisciplinary global university with a distinctive approach to research and education, CGU, Odisha is creating next generation managers, entrepreneurs, leaders, researchers and industry stalwarts. It offers courses at all levels – Under Graduate, Post Graduate and Ph.D. in diverse fields including Engineering, Pharmaceutical Sciences, Agricultural Science, Basic Sciences, Humanities, Tourism and Management. We continue to add interdisciplinary courses to our existing portfolio to offer a truly global education in the field of science and technology.

About Faculty of Pharmacy At A Glance

The Faculty of Pharmacy at CGU-Odisha was established with a clear vision to address the evolving demands of the pharmaceutical sector. It aims to cultivate a sustainable ecosystem that fosters research, industrial collaboration, and entrepreneurial growth among students. We are dedicated to nurturing a world-class academic environment that encourages innovation, critical thinking, and professionalism. Currently, the Faculty of Pharmacy offers two-year Diploma in Pharmacy (D.Pharm) program, a four-year Bachelor of Pharmacy (B.Pharm) program, a three years of B.Pharm (LE) and a PhD in pharmaceutical sciences. Our meticulously designed curriculum ensures that students receive a holistic and contemporary education, empowering them with the knowledge and practical skills necessary to thrive across diverse domains of the pharmaceutical industry.

Our Mission

- To provide state-of-art technical education in the undergraduate and postgraduate levels.
- To work collaboratively with technical institutes/ universities/industries of national and international repute.
- To keep abreast with latest technological advancements.
- To enhance the research and development activities

Our Vision

To emerge as a global leader in the arena of technical education commensurate with the dynamic global scenario for the benefit of mankind.

REGISTRATION DETAILS

Registration Fee: ₹100 (Only Students)

Registration Fee: ₹200 (For Others)

Registration Link

https://docs.google.com/forms/d/1Xf_UN0ho2H2WMKzq0o8r5a1jwDptYJKhAJsXdWAZ9qk/edit



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Account Number: 732802010005135

IFSC Code: UBIN0573281



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