विज्ञान एवं प्रौद्योगिकी विभाग DEPARTMENT OF SCIENCE & TECHNOLOGY





08-14

DECEMBER 2022

SOLAN



# DST STUTI ICT

A hands-on Training Program on Approaches for Screening and Characterization of Pre-clinical Drug Candidates

Under the scheme of

Synergistic Training program Utilizing the Scientific and Technological Infrastructure (STUTI)

An initiative by the Department of Science and Technology, India

Organized by the Institute of Chemical Technology, Mumbai (PMU)

Hosted by Jaypee University of Information Technology, Waknaghat, Solan

# ABOUT JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY (JUIT)

Jaypee University of Information Technology (JUIT) is spread over 25 acres of lush green picturesque slopes of Waknaghat hills in the Solan District of Himachal Pradesh. The University has a world class infrastructure beautifully designed by a Montreal based Canadian architect firm. The Chancellor of JUIT is the Governor of Himachal Pradesh. The University has been twice accredited by NAAC (2011 and 2017). JUIT offers various undergraduate, postgraduate, and doctoral degree programs under its six departments namely Biotechnology and Bioinformatics, Civil Engineering, Computer Science & Engineering and Information Technology, Electronics and Communication Engineering, Humanities and Social Sciences, Mathematics, and Physics and Materials Science. Apart from well versed academic programs, JUIT is largely a research oriented University focusing on quality research output. Since its inception, JUIT has secured grants of Rs. 21.82 Cr for research projects from various funding agencies such as DST, DBT, CSIR, ICMR, DRDO, DRDE, AyurVet Ltd., MoE, Ministry of Health GOI, TRIFED, Directorate of ER&IPR, ISRO, National Board for Higher Mathematic, DST-Russian Foundation for Basic Research, SERB-DST, SEED –DST, SCSTE, DST –DAAD, HIMCOSTE, DEST-HP, and Dept of Industries, H.P. JUIT has published around 4192 scientific publications.

# ABOUT THE PROGRAM

Drug discovery is the process through which potential new medicines are identified. The process of modern drug discovery includes *in-silico* and/or *in-vitro* pre-clinical study followed by well-organized clinical trials in healthy individuals and patients. This training program will largely emphasize on experiments for the identification of potential drug molecules at the pre-clinical stage. Seven training modules have been formulated which will give hands-on experience to candidates on drug target identification, phytochemical crude extraction and analysis of metabolites from medicinal plants, characterization of phytochemicals, high throughput virtual screening, and *in-vitro* cytotoxicity assay. Overall, the training program will impart sufficient hands-on experience to the candidates for understanding and executing preclinical drug candidate screening process.

Practical exposure to instruments includes:





**RT-PCR** (BIO-RAD C1000 Thermal Cycler)

Analytical HPLC (Waters)

REGISTRATION

**DEADLINE:** 

**NOVEMBER** 

18, 2022



Atomic Absorption Spectrometer (Perkin Elmer Analyst 400)



Fluorescent Microscope (Olympus BX53)



**Plant Tissue Culture Facility** 

### WORKSHOP DETAILS

Eligibility: The minimum qualification should be Post Graduate (Science/ Pharmacy) or B. Tech./ B.Pharma), Faculty Members/Scientists/ Post-Doc Fellows, Ph. D. Fellows, and Industry Personnel who are actively involved in R&D.

#### Duration: 7 days No. of participants: 30

Accommodation, if required (for outstation candidates only) and food will be provided REGISTRATION

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https://bit.ly/DSTSTUTIICT-JUIT

NO REGISTRATION FEE

## **KEY SPEAKERS**

#### Dr. Omesh Kumar Bharti (Padma Shri)

State Epidemiologist, State Institute of Health & Family Welfare, Parimahal, Shimla, Himachal Pradesh.

#### Dr. Shamsher Singh Kanwar

Professor, Department of Biotechnology, Himachal Pradesh University, Summer Hill, Shimla, Himachal Pradesh.

#### Dr. Prosenjit Mondal

Associate Professor, School of Basic Sciences, IIT Mandi, Mandi, Himachal Pradesh.

#### Dr. Mahesh Kulharia

Associate Professor & Director, Centre for Computational Biology & Bioinformatics, Central University of Himachal Pradesh, Dharamsala, Himachal Pradesh

# CONTACT DETAILS

#### DST STUTI ICT

Dr. Ratnesh Jain (DST STUTI ICT-Coordinator) Mr. Jaidev Bhatt (Program Manager), Mob: +91-86557 11253 Email: stuti.ict2@nano-medicine.co.in

#### Jaypee University of Information Technology

Dr. Raj Kumar (Host Institute Coordinator)

Location of the Workshop Jaypee University of Information Technology, Waknaghat, Solan.