

APPLICATION FORM FOR PARTICIPATION IN WORKSHOP

on
'Application of Advanced Pharmacological and
Molecular Tools for Bioprospecting of Drugs'
from 28th June - 7th July, 2023

Sponsored Under
DST-SERB (ACCELERATE VIGYAN SCHEME)

Candidates Name :
Enrollment/Registration No. :
Degree (PG/PhD) :
Year of Study (1st/2nd/3rd/4th/5th) :
Department/Division :
University/Institute/Organization :
Date of Birth (D/M/Y) :
Category (UR/SC/ST) :
Address for Correspondence :
Contact No. :
Email :
Academic Record

Examination	Major Subjects	Year	Marks (%) /OGPA	University/ Institute
Bachelor				
Masters				
Ph.D.				
Any other				

Date:
Place: (Signature of the applicant)

Recommendation of HOD / Head of the Institution:

Signature
Designation
Address

For any query, please contact:

Dr. Soumen Choudhury,
Training Organizer
Assistant Professor,
Department of Veterinary Pharmacology & Toxicology,
CoVSc & A.H., DUVASU, Mathura
Contact No.: 91-7906379217, 9411065114
Email: chsoumenpharma@gmail.com

Chief Patron
Prof. (Dr.) A. K. Srivastava
Vice Chancellor,
DUVASU, Mathura

Patron
Prof. (Dr.) P. K. Shukla
Dean, College of Veterinary Sc. & A.H.,
DUVASU, Mathura

Training Organizer
Dr. Soumen Choudhury
Assistant Professor
Department of Veterinary Pharmacology & Toxicology,
College of Veterinary Sc. & A.H., DUVASU, Mathura

Training coordinator(s)
Dr. Atul Prakash
Associate Professor & Head
Department of Veterinary Pharmacology & Toxicology
College of Veterinary Sc. & A.H., DUVASU, Mathura

Dr. Amit Shukla
Assistant Professor
Department of Veterinary Pharmacology & Toxicology
College of Veterinary Sc. & A.H., DUVASU, Mathura

Dr. Ajay Pratap Singh
Assistant Professor
Department of Veterinary Microbiology
College of Veterinary Sc. & A.H., DUVASU, Mathura



Karyashala
on
**"Application of Advanced Pharmacological and
Molecular Tools for Bioprospecting of Drugs"**

Sponsored Under
DST-SERB (ACCELERATE VIGYAN SCHEME)

28th June - 7th July, 2023



Organized by
Department of Veterinary Pharmacology and Toxicology
College of Veterinary Science and Animal Husbandry
U.P. Pandit Deen Dayal Upadhyaya Pashu Chikitsa Vigyan
Vishwavidyalaya Evam Go-Anusandhan Sansthan (DUVASU)
Mathura-281001 (U.P.) INDIA

About the University and the Department

U.P. Pandit Deen Dayal Upadhyaya Pashu Chiktsa Vigyan Vishwavidylaya Evam Go-Anusandhan Sansthan, Mathura, was established in 2001. College of Veterinary Science and Animal Husbandry Mathura, established in 1947, is one of the pioneer Veterinary Institutes in the country and is recognized for its significant contributions in the field of animal health and production. Department of Pharmacology and Toxicology, earlier Department of Materia Medica and subsequently the Department of Pharmacology, came into existence in 1949. Postgraduate education programme leading to award of MVSc degree in Veterinary Pharmacology was started in 1962 and PhD in 1970. Since its inception, Department has been actively involved in research on medicinal plants, characterization of receptors and ion channels and down-stream-signalling pathways, toxicokinetic and toxicodynamics of metals and agrochemicals, evaluation of ameliorative potential of certain plants against xenobiotics and therapeutic efficacy of certain drugs.

With the financial assistance of Indian Council of Agricultural Research (ICAR) and Rashtriya Krishi Vikas Yojana (RKVY), the “State of the Art Research Facility” was established in the Department which was equipped with several sophisticated instruments like AAS, HPLC, GC-MS, Data Acquisition System (DAS) based Physiograph, Wire Myograph, Real time PCR, Electrophoresis and Western Blot facility, Fluorescent microscopy, Flow Cytometry, Cell culture facility etc. These facilities are made available to the students and faculties of different Institutes. Department has the credit of organizing several training programmes time to time for the young budding researchers and faculty members viz. Hands on Training programme under Niche Area of Excellence Programme of ICAR (2015, 2016), 21 days Winter School (2016), Short Course (2018), SCSF training (2020, 2021, 2022, 2023) etc. The Department is actively involved in imparting training to Masters and Doctoral students in the disciplines of Veterinary Pharmacology and Toxicology and till 2022, 102 MVSc and 17 PhD students have completed their research work. The research works undertaken by the students and faculties of this Department has been published in the Journals of International repute with high impact factor.

About the Karyashala:

The modern drug discovery process begins with *in silico* prediction of potential therapeutic targets followed by pre-clinical experiments for identification of receptors, efficacy testing of lead

compounds and finally the clinical efficacy testing. During the pre-clinical study, several basic and advanced analytical, biochemical, pharmacological and molecular techniques are frequently used to identify novel therapeutic targets. Understanding of the complex cellular signaling of therapeutic targets viz. receptors, ion channels and other cellular mediators in different patho-physiological conditions is gaining importance now-a-days in scientific world. Therefore, basic understanding and practical hands on exposure to various basic and advanced techniques is of utmost importance among the researchers.

The technical session of this training programme includes lectures, practical demonstration and group discussions with the resource persons from the host Institute as well as scientists from ICAR, CSIR and Central Universities. This training programme is being organized for young budding researchers and students with the basic objective of imparting hands on training on different advanced molecular and pharmacological techniques used in biomedical research which will help them to enlighten their research concepts and methodologies for undertaking quality research in near future. The complete overview of these sophisticated techniques from ‘instrumentation to application’ will encourage the students to undertake inter-disciplinary approaches to uncover the unexplored areas of pharmacological and biomedical research.

Major topics:

- ❖ Isometric tension recording in isolated tissue preparations using organ bath and wire myograph.
- ❖ Bioanalytical techniques like Ultra-Performance Liquid Chromatography (UPLC), Atomic Absorption Spectrophotometry (AAS), Gas Chromatography-Mass Spectrophotometry (GC-MS) and Inductively coupled plasma-optical emission spectroscopy (ICP-OES).
- ❖ Genomic and Proteomic approaches (qRT-PCR, SDS-PAGE, Western Blot, 2D electrophoresis etc.) for studying receptor expression.
- ❖ Molecular docking analysis of lead compounds.
- ❖ Genome editing by CRISPR/Cas9.
- ❖ Flow cytometry.
- ❖ Bacterial efflux pump activity assay.
- ❖ Immunohistochemistry, immunocytochemistry and ELISA

Eligibility Criteria:

- Students pursuing post-graduate degree and PhD in Pharmacology & Toxicology and related disciplines are eligible to apply.
- Eligible candidates must fill the attached application form along with the supporting documents and mail the duly filled application form to smnpharmaduvasu@gmail.com on or before 17th June, 2023 (5:00 PM). The application form must be forwarded and recommended by the concerned HOD/ Competent authority.
- Maximum 20 candidates will be selected and short listed candidates will be intimated in due course of time. The training will be conducted in Physical mode. Participants must follow the COVID-19 guidelines as per GOI.

Important Notes

Course Title	Application of Advanced Pharmacological and Molecular Tools for Bioprospecting of Drugs
Duration	28 th June - 7 th July, 2023
Registration Fee	NIL
Last Date of registration	17 th June, 2023
Intimation of selection	20 th June, 2023

Food and Accommodation	Will be provided by the organizer in University Guest House or Hostel
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Travel allowance	Travel expenditure (Train Fare up to sleeper class or state transport buses by the shortest route) to the selected candidates will be reimbursed as per norms of GOI or State Govt.)
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Venue	Department of Veterinary Pharmacology & Toxicology College of Veterinary Sc. & AH, DUVASU, Mathura
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ACCELERATE
vigyan



High End Workshop (Karyashala)
on

**“Application of Advanced Pharmacological and Molecular Tools for
Bioprospecting of Drugs”**

28th June - 07th July, 2023

Sponsored Under

DST-SERB (ACCELERATE VIGYAN SCHEME)

Passport size
Photo
With signature

APPLICATION FORM

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Academic Record

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Graduation				
Master Degree				
PhD				
Any other				

Date :

Place:

Signature of Applicant

Recommendation by HOD/ Head of the Institution:

**Signature
Designation**