

CURRICULUM VITAE

Dhirendra Singh (M.V.Sc. Pathology)

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CURRENT R&D ACTIVITY

Regulatory toxicity studies

Regulatory toxicity studies as per various guidelines such as OECD, DBT, ICH, ISO, Schedule Y, Pharmacopeias etc for safety/ Toxicity evaluation of different products like agrochemicals, pesticides, drugs and pharmaceutical products, medical devices etc.

Developmental toxicity studies

Study of teratogenic potential and pathomorphological alteration of various compounds.

PRESENT RESPONSIBILITY

- Developmental/ teratological toxicity evaluations.
- Toxicological data generation for the various products as per OECD and other guidelines.
- Supply of time pregnant female rats to the scientist for their research work.
- Animal house supervision & maintenance.
- Health care of animals and treatment of sick animals.
- Breeding management of different laboratory animals.
- Dosing of animals via various routes.
- Recording of toxicity signs & symptoms of experimental animals.
- Postmortem examination of dead / sacrificed experimental animals.
- Histopathological evaluation of tissues.

ACADEMIC QUALIFICATIONS

■ Master of Veterinary Pathology (1998-2000)

Institute: Department of Pathology, College of Veterinary Sciences, Mathura, (Uttar Pradesh), India.

M.V.Sc. research title: Argemon Seed Toxicity In Sheep – A Clinical, Clinicopathological And Pathomorphological Studies”

Guide: Dr. Dr.A.K.Srivastava, Ph.D.
Professor & Head, Department of Pathology.
College of Veterinary Sciences, Mathura, (Uttar Pradesh), India.

Aim: To study the effect of argemone seed toxicity and identification of target organ.

Division: First

■ Bachelor of Veterinary Sciences & Animal Husbandry (1992-1997)

Institute- G.B.Pant University of Agriculture and Technology, Pantnagar, Nainital, India.

Division: First

SCHOLASTIC ACHIEVEMENTS

1. ICAR merit cum means scholarship during B.V.S.C. & A.H. degree program.
2. Merit scholarship during M.V.Sc. program

WORK EXPERIENCE

- Working as Senior Scientist at Indian Institute of Toxicology Research, M.G. Marg, Lucknow since April 01, 2010 to till date.
- Worked as scientist at Indian Institute of Toxicology Research, M.G. Marg, Lucknow since April 01, 2005 to Mar. 31, 2010.
- Four and half year experience as a Veterinary Pathologist at Shriram Institute for Industrial Research, Delhi –110007.
- Two year full time research experience as a MVSc scholar during post graduation.
- Served as a Veterinary Officer in embryo transfer technology project at Animal Breeding Centre, Salon, Raebareli (unit of Animal Breeding Research Organization, Anand, Gujrat) since 3rd Dec. 1997 to 19th Nov. 1998.

- Worked as a teaching assistant in the Dept. of Genetics and Animal Breeding from 22nd aug 1997 to 25th nov., 1997 at Veterinary College, Pantnagar.

MAJOR STUDIES PERFORMED

- Toxicological data generation for various bio pesticides
- Effect of anti cholesterolemic drugs in hyper cholesterolemia induced rabbits
- Repeated dose sub-acute studies for various new drug molecules in rat, mice, rabbits etc.
- Efficacy studies for various ant diabetic herbal products
- Acute toxicological data generation for various agrochemicals
- Toxicity studies for transgenic crops as per BDT, India guidelines
- Bio compatibility tests for various medical devices
- Wound healing studies in guinea pigs & rats
- Two generation toxicity studies on rat for pesticides.
- Skin irritation studies on rabbit.
- Mucus membrane toxicity studies on rabbit.
- Developmental prenatal toxicity studies

PUBLICATIONS

- Tiwari MN, Singh AK, Ahmad I, Upadhyay G, **Singh D**, Patel DK, Singh C, Prakash O, Singh MP : Effects of Cypermethrin on Monoamine Transporters, Xenobiotic Metabolizing Enzymes And Lipid Peroxidation In The Rat Nigrostriatal System. *Free Radic Res.* 2010 Dec;44(12):1416-24.
- Singh AK, Tiwari MN, Upadhyay G, Patel DK, **Singh D**, Prakash O, Singh MP : Long term exposure to cypermethrin induces nigrostriatal dopaminergic neurodegeneration in adult rats: postnatal exposure enhances the susceptibility during adulthood. *Neurobiol Aging.* 2012 Feb;33(2):404-15.
- Singh AK, Tiwari MN, Dixit A, Upadhyay G, Patel DK, **Singh D**, Prakash O, Singh MP. : Nigrostriatal proteomics of cypermethrin-induced dopaminergic neurodegeneration: Microglial activation dependent and independent regulations. *Toxicol Sci.* 2011 Aug;122(2):526-38.
- Sankhwar ML, Yadav RS, Shukla RK, Pant AB, **Singh D**, Parmar D, Khanna VK. : Impaired cholinergic mechanisms following exposure to monocrotophos in young rats. *Hum Exp Toxicol.* 2012 Jun;31(6):606-16
- Ansari RW, Shukla RK, Yadav RS, Seth K, Pant AB, **Singh D**, Agrawal AK, Islam F, Khanna VK.: Cholinergic dysfunctions and enhanced oxidative stress in the neurobehavioral toxicity of lambda-cyhalothrin in developing rats. *Neurotox Res.* 2012 Nov;22(4):292-309

- Ansari RW, Shukla RK, Yadav RS, Seth K, Pant AB, **Singh D**, Agrawal AK, Islam F, Khanna VK.: Involvement of dopaminergic and serotonergic systems in the neurobehavioral toxicity of lambda-cyhalothrin in developing rats. *Toxicol Lett.* 2012 May 20;211(1):1-9.
- Ahmad I, Shukla S, Kumar A, Singh BK, Kumar V, Chauhan AK, **Singh D**, Pandey HP, Singh C.: Biochemical and molecular mechanisms of N-acetyl cysteine and silymarin-mediated protection against maneb- and paraquat-induced hepatotoxicity in rats. *Chem Biol Interact.* 2013 Jan 25;201(1-3):9-18.
- Singh A, Yadav S, Srivastava V, Kumar R, **Singh D**, Sethumadhavan R, Parmar D.: Imprinting of cerebral and hepatic cytochrome p450s in rat offsprings exposed prenatally to low doses of cypermethrin. *Mol Neurobiol.* 2013 Aug;48(1):128-40.

INVITED LECTURES

- Delivered lecture on 'Animal House Equipments, Utensils, Cages and Racks' in Animal House Technician Training Program, 2008 at CDRI, Lucknow.
- Delivered lecture on 'Maintaining Sanitation and Hygiene in Laboratory Animal Facility' in Animal House Technician Training Program, 2008 at CDRI, Lucknow.

GUEST REVIEWER OF NATIONAL/ INTERNATIONAL JOURNALS

- Human & Experimental Toxicology

TRAINING/WORKSHOP/CONFERENCE ATTENDED

- International Conference on Alternative to the use of Animals in Research & Education at New Delhi from Feb. 18th to 20th, 2003. Organized by Ministry of Environments and Forests, Govt. of India and Committee for the Purpose of Control & Supervision of Experiments on Animals (CPCSEA)
- Asia Region Short Term Course on Food Safety held at Teri Retreat, Gual Pahari, India, from June 2nd to 5th, 2004. Organized by the Tata Energy & Resource Institute, New Delhi, India & Michigan State University, East Lansing, USA.
- Non-Clinical safety Testing Training Workshop held at New Delhi, India, from October 24th to 26th, 2005. Organized by the CDRI Lucknow in collaboration with WHO/ TDR.
- National Consultation on Herbo-Metallic Preparation of Indian System of Medicine; Safety and Quality Standardization" from March 3-4 at Delhi. Organized by Shriram Institute for Industrial Research, Delhi.
- Laboratory Quality Management System & Internal Audit as per ISO/ IEC 17025 (2005) from July 16-19, 2007 at Jaipur, India. Organized by IIQM , Jaipur, India.
- The International Workshop on Toxicology towards the Diplomate of the American Board of Toxicology (DABT) from October 08-12, 2007 at Bangalore. Organized by Veterinary College, Hebbal, Bangalore & Advinus Pharmaceuticals, Bangalore, India.
- WHO/TDR Training workshop on GLP from January 10-13, 2011 Organized by CSIR-IITR, Lucknow, India in collaboration with WHO (TDR).

- Preclinical GLP Study Directors Workshop from October 08-10, 2012 Organized by American College of Toxicology in collaboration with Association of Toxicology, India

MEMBERSHIPS OF SCIENTIFIC SOCIETIES

- Life membership of Indian Association of Veterinary Pathologist (IAVP)
- Life membership of Laboratory Animal Scientists Association (LASA)
- Life membership of Laboratory Animal Scientists Association of India (LASAI)

PERSIONAL PARTICULARS

Father's Name : Mr. Amar Bahadur Singh
Date of Birth : 20th June 1976
Nationality : Indian
Languages Know : English, Hindi.

(DHIRENDRA SINGH)