

CURRICULUM VITAE

Dr. Manoj Kumar, Ph.D.

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Assistant Professor

Department of Zoology

Government College Chowari

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Present Position

- Assistant Professor, Department of Zoology, Government College Chowari, Chamba, 17th April 2017 onwards.
- Nodal Officer RED RIBBON CLUB, Scholarship,
- Member House examination committee, IQAC, Grievance redressal, NAAC,

Academic Qualifications

- Ph.D. (Zoology), Department of Zoology, Panjab University, Chandigarh, 2014.
- Master of Science - Zoology (H.S.), Panjab University, Chandigarh, 2007.
- Bachelor of Science, Himachal Pradesh University, Shimla, 2004.
- Senior Secondary, H.P.B.S.E. Dharamshala, 2001.
- Matriculation, H.P.B.S.E. Dharamshala, 1999.

Ph. D. Thesis

Evaluation of white tea and green tea against benzo(a)pyrene induced oxidative stress and genotoxicity.

M. Sc. Dissertation

Effect of some herbal extracts on four phosphatases and surface architecture of *Stilesia* sp. (cestoda).

Research & Teaching Experience

- Assistant Professor, Department of Zoology, Government College Chowari, Chamba, 17th April 2017 onwards.
- Worked as D.S. Kothari Post doctoral fellow, Department of Biophysics, South Campus, Panjab University, Chandigarh from 2nd July 2015 to 16th April 2017.
- Worked as Assistant Professor, DAV College, Guru Nanak Dev University, Jalandhar from 8th July 2014 to 11th April 2015.
- Worked as Senior Research Fellow (SRF), Parasitology Laboratory, Deptt. of Zoology, Panjab University, Chandigarh, from 1st Feb. 2011 to 6th May 2014.
- Worked as Junior Research Fellow (JRF), Parasitology Laboratory, Deptt. of Zoology, Panjab University, Chandigarh, from 6th Jan. 2009 to 31st Jan. 2011.
- Conducted practical classes of undergraduate students at department of Zoology, Panjab

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University, Chandigarh, from July 2009 to July 2013.

Award/ Fellowship/Grant

- Dr. D. S. Kothari post doctoral fellowship, University Grant Commission, 2015.
- ICMR International Travel grant to visit Olomouc University, Czech Republic, 30th June to 4th July 2012.
- DST International Travel grant to present poster in conference at Chullabhorn Research Institute, Bangkok, Thailand, December 2011. (Not attended)
- CSIR International Travel grant to visit University of Munster, Germany, 28th to 29th March 2011.
- CSIR Senior Research Fellowship in Life Science from February 1, 2011 to January 31, 2014.
- CSIR Junior Research Fellowship in Life Science from January 6, 2009 to January 31, 2011.
- Qualified CSIR-National eligibility test (NET) for Junior Research Fellowship and lectureship for Life Sciences held on June 22, 2008.
- Dr. B.R. Ambedkar Medhavi Chatarvriti in the year 2000.

Publications (Research article/book chapter)

- Bhardwaj P, Kumar M, Dhatwalia SK, Garg ML, Dhawan DK. Protective role of AKBA against benzo(a)pyrene-induced lung carcinogenesis by modulating biotransformation enzymes and oxidative stress. *J Biochem Mol Toxicol.* 2022 Jul;36(7):e23072. doi: 10.1002/jbt.23072. Epub 2022 Apr 19. PMID: 35437857. Impact Factor 3.5
- Bhardwaj, P., Kumar, M., Dhatwalia, S. K., Garg, M. L., & Dhawan, D. K. (2019). Acetyl-11-keto- β -boswellic acid modulates membrane dynamics in benzo (a) pyrene-induced lung carcinogenesis. *Molecular and Cellular Biochemistry*, 460, 17-27. Impact Factor 2.8
- Dhatwalia SK, Kumar M, Bhardwaj P, Dhawan DK. White tea - A cost effective alternative to EGCG in fight against benzo(a)pyrene (BaP) induced lung toxicity in SD rats. *Food Chem Toxicol.* 2019 Sep;131:110551. doi: 10.1016/j.fct.2019.05.059. Epub 2019 Jun 1. PMID: 31163217. Impact Factor 6
- Dhatwalia SK, Kumar M, Bhardwaj P and Dhawan DK (2018). Evidence of similar protective effects afforded by White tea and its active component 'EGCG' on oxidative-stress mediated hepatic dysfunction during benzo (a) pyrene induced toxicity *Food and Chemical Toxicology*, 116:281-291. Impact factor 6
- Dhatwalia SK, Kumar M and Dhawan DK (2017). Role of EGCG in containing the progression of lung tumorigenesis-A multistage targeting. *Nutrition and Cancer*. Accepted Impact factor 2.4,
- Dhatwalia SK, Yadav R, Behera D, Kaur H, Kumar M and Sethi S (2017). High proportion of modern genotypes of *M. tuberculosis* and their affinity with drug resistance in northern region of India. *Journal of Global Antimicrobial Resistance*. DOI: 10.1016/j.jgar.2017.04.010. Impact factor 1.2
- Kumar M, Singh G, Bhardwaj P, Dhatwalia SK and Dhawan DK (2016). Understanding the role of 3-O-Acetyl-11-keto- β -boswellic acid in conditions of oxidative-stress mediated

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- hepatic dysfunction during benzo(a)pyrene induced toxicity. Food and Chemical Toxicology, DOI10.1016/j.fct.2017.03.058, Impact factor 6
- Kumar M, Dhatwalia SK and Dhawan DK (2016). Role of angiogenic factors of herbal origin in regulation of molecular pathways that control tumor angiogenesis. Tumor Biology, 37, 14341-14354. Impact factor 3.6.
 - Sehgal A, Kumar M, Jain M and Dhawan DK (2013). Modulatory effects of curcumin in conjunction with piperine on benzo(a)pyrene-mediated DNA adducts and biotransformation enzymes. Nutrition and Cancer, 65, 885-890. Impact factor 2. 4
 - Kumar M, Jain M, Sehgal A and Sharma VL (2012). Modulation of CYP1A1, CYP1B1 and DNA adducts level by green and white tea in Balb/c mice. Food and Chemical Toxicology, 50, 4375-4381. Impact factor 6
 - Kumar M, Sharma VL, Sehgal A and Jain M (2012). Protective effects of green and white tea against benzo(a)pyrene induced oxidative stress and DNA damage in murine model. Nutrition and Cancer, 64:300-306. Impact factor 2.4
 - Sehgal A, Kumar M, Jain M and Dhawan DK (2012). Piperine as an adjuvant increases the efficacy of curcumin in mitigating benzo (a) pyrene toxicity. Human Experimental Toxicology, 31, 473-482. Impact factor 1.8
 - Sehgal A, Kumar M, Jain M and Dhawan DK (2012). Synergistic effects of piperine and curcumin in modulating benzo (a) pyrene induced redox imbalance in mice lungs. Toxicology Mechanism and Methods. 22:74-80. Impact factor 1.5
 - Sehgal A, Kumar M, Jain M and Dhawan DK (2011). Combined effects of curcumin and piperine in ameliorating benzo(a)pyrene induced DNA damage. Food and Chemical Toxicology, 49:3002-3006. Impact factor 6
 - Jain M, Gupta R, and Kumar M (2009). Ex-vivo effects of methanol extracts of *Chenopodium ambrosioides* and *Mallotus philippinensis* on some phosphatases of *Stilesia* species. Parasitologia, 51: 71-73.
 - Arora A, Jain M and Kumar M (2016). *Ocimum sanctum* and *Mallotus philippinensis* as penitential candidate for anthelmintic preparation. JCOPR. 8: 340-344.
 - Role of fish biomarkers in aquatic environmental health assessment. In Recent Developments in Science and Technology, Unimax Publications, PP 45. (ISSBN: 978-93-83730-71-1) (2021)
 - Verma, S., Kumar, M., Kapoor, N. (2022). Biochar as an Emerging Amendment for Remediation of Heavy Metals-Contaminated Soil. In: Malik, J.A. (eds) Microbial and Biotechnological Interventions in Bioremediation and Phytoremediation. Springer, Cham. https://doi.org/10.1007/978-3-031-08830-8_19

Conferences/ Workshops attended

- Presented poster at “21st National Congress of Parasitology”, organized by Department of Zoology, Panjab University, CHANDIGARH, November 14-16, 2009.
- Presented poster at “National Conference on Advances in Biological Sciences”, held at Department of Zoology, Panjab University, CHANDIGARH, March 29-30, 2010.
- Attended a Symposium on Advanced techniques in Basic Research: Tools of 21st Century, held at PGIMER, CHANDIGARH, May 1, 2010.

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- Attended a Faculty Development Programme on Research and Data Analysis using SPSS, organized by Department of Statistics, Panjab University, CHANDIGARH, December 16-17, 2010.
- Participated in workshop on Biostatistics and Official Statistics, organized by Department of Statistics Panjab University, CHANDIGARH, December 21-22, 2010.
- Presented poster at “National Seminar-cum-Workshop on Exploring New Vistas in Biodiversity Research for Sustainable Development”, held at Department of Zoology, Panjab University, CHANDIGARH, January 22-24, 2011.
- Participated in workshop on Animal Cell Culture Techniques held in Department of Biochemistry, Annamalai University, Chidambaram, TAMIL NADU, March 18-20, 2011.
- Participated in workshop on “How to Practice Evidence based Child Health” at LT-1, PGIMER, CHANDIGARH, May 10-11, 2014.
- Presented poster at International Congress “Natural Anticancer Drugs”, (NAD) held Palacky University, Olomouc, CZECH REPUBLIC, June 30 – July 04, 2012.
- Presented poster at “Emerging trend in free radicals, antioxidants and nutraceuticals on health, diseases and radiation biology”, held at Lake Land Country Club, Kolkata, INDIA, January 12-14, 2012.
- Presented poster at “Workshop on Biomarker of Exposure and Oxidative DNA Damage & 7th GUM 32P-Postlabelling Workshop”, held at University of Munster, GERMANY, March 28-29, 2011.
- Attended a 2nd Biennial International Conference on New Developments in Drug Discovery from Natural Products and Traditional Medicines, organized by Department of Natural Products at NIPER-Mohali Sector 67, S.A.S. Nagar, Punjab INDIA, November 20-24, 2010.
- Attended International symposium on Recent Updates on Mutation and Cancer Research, held at Panjab University, Chandigarh, INDIA, December, 18, 2011.
- Attended International Symposium on Mutagens and Genetic Diversity for Health and Agriculture, held at Panjab University, Chandigarh, INDIA, March 12-14, 2010.
- Participated in International Symposium on Cancer Chemoprevention and Translational Research, held at School of Life Science, Jawaharlal Nehru University, New Delhi, INDIA, December 21 2009.

Membership of societies

- Life member of Indian Association of Biomedical Scientists.
- Life member of Society of Biological Chemists.
- Member of United Kingdom Environmental Mutagen Society.
- Member of Phytochemical Society of Europe.

Laboratory/Technical skills

Molecular Biology techniques:

- Isolation and electrophoretic analysis of genomic DNA from animal tissues.

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PCR, Analysis of DNA sequencing products, multiple alignments of sequences, 1D gel electrophoresis.

Biochemical techniques:

→ Western blotting, SDS-PAGE, ELISA. Spectrophotometric enzyme analysis.

Cell Biology Technique and Genotoxicity testing

→ Comet assay technique, Micronucleus assay, DNA adduct analysis, DNA fragmentation assay, Bone marrow chromosomal extraction.

Histological techniques:

→ Tissue section preparation, paraffin embedding, section cutting, slide preparation and haematoxylin and eosin staining.

Animal Experiment:

→ Animal handling.

→ Well acquainted with statistical software SPSS 16.0 version, Endnote software and photoshop software.

Personal Profile

Name	:	Manoj Kumar
Date of Birth	:	23 rd May 1983
Marital status	:	Married
Nationality	:	Indian
Hobbies	:	Listening to music
Countries visited	:	Germany, Austria, Czech Republic

Signature