

CURRICULUM VITAE

Name : **DEVENDRA PARMAR**

Date of Birth : June 03, 1961

Place of Birth : Lucknow, India

Nationality : India

Marital Status : Married

Address for correspondence : Scientist F & Head
Developmental Toxicology Division
Indian Institute of Toxicology Research
(Formerly: Industrial Toxicology Research Centre)
Mahatma Gandhi Marg, P.O. Box No. 80
Lucknow-226001, U.P, INDIA.
Tel.: 0091-522-2213618; 2620207
FAX: 0091-522-2628227
E-mail: parmar_devendra1@rediffmail.com
parmar_devendra@hotmail.com

Residence : B-75, Sector 'C'
Mahanagar
Lucknow-226006
Tel.: 0091-522-4010677(R)
Mobile: 94159-14451

Education :

B.Sc	1981	Lucknow University, Lucknow, India
M.Sc	1983	Lucknow University, Lucknow, India
Ph.D*	1986	Lucknow University, Lucknow, India

***Title of thesis:** Some chemical, biological and toxicological studies on di(2-ethylhexyl)phthalate

Brief Chronology of Employment:

July 1983-May1987: Research Fellow, Industrial Toxicology Research Centre (ITRC), CSIR, Govt. of India, India.

May 1987-May 1992: Scientist B, Industrial Toxicology Research Centre (ITRC), CSIR, Govt. of India, India.

Sept.1989-Sept.1991: Visiting Fogarty Fellow, Chemical Metabolism & Disposition, National Institute of Environmental Health Sciences

	(NIEHS), National Institute of Health (NIH), Research Triangle Park, NC, U.S.A.
Oct.1991-Aug.1992:	Visiting Associate, Department of Pharmacology, University of Wisconsin- Madison Medical School, Madison, WI, U.S.A
May 1992-May 1997:	Scientist C, Industrial Toxicology Research Centre (ITRC), CSIR, Govt. of India, India.
Aug.1996-Dec. 1996: & Aug. 1998-Oct. 1998	Guest Scientist, Department of Molecular Toxicology, Institute for Toxicology, Technical University, Munich, Germany
May 1997-May 2001:	Scientist E-1, Industrial Toxicology Research Centre (ITRC), CSIR, Govt. of India, India.
May 11,2001- May 10: 2006	Scientist E-II, Industrial Toxicology Research Centre (ITRC), CSIR, Govt. of India, India..
May, 2006- Todate:	Dy. Director (Scientist F), Indian Institute of Toxicology Research, (Formerly: Industrial Toxicology Research Centre (ITRC), CSIR, Govt. of India, India.

Membership of Scientific Societies

Indian Pharmacological Society- Life Member
 Society of Toxicology (India)- Life member
 Environmental Mutagen Society of India- Life member
 Society of Biological Chemists (India)- Life Member
 U.P Society of Advancement of Science- Life Member
 Indian Academy of Neurosciences- Life Member

RESEARCH EXPERIENCE

Predictive toxicology, single nucleotide polymorphism (SNPs) and genotyping.
 Gene expression of cytochrome P450s (CYPs) in mammalian brain.
 Fingerprinting of Cytochrome P450 (CYPs) profiles in blood.
 Xenobiotic metabolism and Toxicokinetics.

Member, Editorial Board

World Journal of Hepatology
 Journal of Ovarian Research
 Frontiers in Pharmacogenetics and Pharmacogenomics
 Case Reports in Oncological Medicine
 World Journal of Hepatology

BIBLIOGRAPHY

1. **Parmar, D.**, Srivastava, S.P., Srivastava, Sri.P and Seth, P.K.: Hepatic mixed function oxidases and cytochrome P-450 contents in rat pups exposed to di(2-ethylhexyl)phthalate (DEHP) through mother's milk. *Drug Metabolism & Disposition* 13, 368-370, 1985
2. **Parmar, D.**, Srivastava, S.P and Seth, P.K.: Effect of di(2-ethylhexyl)phthalate on spermatogenesis in adult rats. *Toxicology* 42, 47-55, 1986.
3. **Parmar, D.**, Srivastava, S.P., Singh, G.B and Seth, P.K.: Effect of testosterone on the testicular atrophy induced by di(2-ethylhexyl)phthalate (DEHP). *Toxicology Letters* 36, 297-308, 1987.
4. **Parmar, D.**, Srivastava, S.P and Seth, P.K.: Studies on γ -glutamyl transpeptidase after di(2-ethylhexyl)phthalate exposure. *Journal of Applied Toxicology* 7, 249-252, 1987.
5. **Parmar, D.**, Srivastava, S.P and Seth, P.K.: Effect of di(2-ethylhexyl)phthalate on the hepatic mixed function oxidases in different animal species. *Toxicology Letters* 40, 209-217, 1988.
6. Dhawan, A., **Parmar, D.**, Das, M and Seth, P.K.: Characterization of cerebral 7-ethoxycoumarin-o-deethylase in brain: evidence for multiple forms of P-450 in brain. *Biochemical Medicine & Metabolic Biology* 41, 184-192, 1989.
7. Dhawan, A., **Parmar, D.**, Das, M and Seth, P.K.: Cytochrome P-450 dependent monooxygenases in neuronal and glial cells: Inducibility and specificity. *Biochemical Biophysics Research Communication* 170, 441-447, 1990.
8. Seth, P.K., Dhawan, A., **Parmar, D** and Das, M.: Cytochrome P-450 catalyzed reactions in brain. In: *Biological Oxidation Systems*. Vol. 1, Eds C. Channa Reddy, Gordon A. Hamilton and K.M. Madyastha, Academic Press, New York, pp 133-146, 1990.
9. Dhawan, A., **Parmar, D.**, Das, M and Seth, P.K.: 7-ethoxyresorufin-o-deethylase: a cytochrome P-448 dependent enzyme in mammalian brain. *European Journal of Pharmacology* 183(4), 1509-1510. 1990.
10. **Parmar, D** and Burka, L.T.: Metabolism and disposition of cyclohexanone oxime (CHOX) in male F-344 rats. *Drug Metabolism & Disposition* 9, 1101-1107, 1991. (9 citations)
11. Dhawan, A., **Parmar, D.**, Das, M and Seth, P.K.: Presence of a selective cytochrome P-448 enzyme in brain: 7-ethoxy- resorufin-o-deethylase (EROD). *International Journal of Toxicology, Occupational & Environmental Health* 1(2),

88-93, 1992.

12. Tandon, R., **Parmar, D.**, Srivastava, S.P., Singh, G.B and Seth, P.K.: Role of protein calorie malnutrition, a predisposing condition in the testicular toxicity of di(2- ethylhexyl) phthalate. *Veterinary & Human Toxicology* 34, 517-520, 1992.
13. **Parmar, D** and Burka, L.T.: Studies on the interaction of furan with hepatic cytochrome P-450. *Journal of Biochemical Toxicology* 8, 1-9, 1993.
14. **Parmar, D.**, Srivastava, S.P and Seth, P.K.: Age related effects of di(2-ethylhexyl)- phthalate on hepatic cytochrome P-450 monooxygenases in wistar rats. *Pharmacology & Toxicology* 75, 177-180, 1994.
15. Raisuddin, S., **Parmar, D.**, Zaidi, S.I.A., Singh, K.P., Verma, A.S., Seth, P.K and Ray, P.K.:Aflatoxin depletes phase I biotransformation system in growing rats . *European Journal of Drug Metabolism & Pharmacokinetics* 19 (2), 163-168, 1994.
16. Michelle, L.C, Brake, P., **Parmar, D** and Jefcoate, C.R.: The induction of five rat hepatic P450 cytochromes by phenobarbital and similarly acting compounds is regulated by a sexually dimorphic, dietary-dependent endocrine factor that is highly strain specific. *Archives of Biochemistry & Biophysics* 315, 24-34, 1994.
17. **Parmar, D.**, Srivastava, S.P and Seth, P.K.: Effect of di(2-ethylhexyl)phthalate (DEHP) on the testicular function of the developing rats. *Veterinary & Human Toxicology* 37 (2), 310-313, 1995.
18. **Parmar, D** and Seth, P.K.: Phthalic acid esters and liver. In *LIVER & ENVIRONMENTAL CHEMICALS*. Eds. S.V.S. Rana and K. Taketa, Narosa-Springer Verlag Inc., India, 1997.
19. **Parmar, D.**, Dhawan, A and Seth, P.K.: Immunochemical evidence for the presence of Phenobarbital (PB) and 3-methylcholanthrene (MC) inducible cytochrome P450 isoenzymes in rat brain. *International Journal of Toxicology* 17, 619-630, 1998.
20. **Parmar, D.**, Dhawan, A and Seth, P.K.: Evidence for dealkylation of 7-pentoxyresorufin by cytochrome P450 2B1/2B2 isoenzymes in brain. *Molecular & Cellular Biochemistry* 189, 201-205, 1998.
21. Dayal, M., **Parmar, D.**, Dhawan, A., Dwevdi, U., Doehmer, J and Seth, P.K.: Induction of rat brain and liver cytochrome P450 1A1/1A2 and 2B1/2B2 isoenzymes by deltamethrin. *Environmental Toxicology & Pharmacology* 7, 169-178, 1999.
22. Dhawan, A., **Parmar, D.**, Dayal, M and Seth, P.K.: Cytochrome P450 (P450) isoenzyme specific dealkylation of alkoxyresorufins in rat brain microsomes. *Molecular & Cellular Biochemistry* 200, 169-176, 1999

23. Dey, A., **Parmar, D.**, Dayal., M., Dhawan, A and Seth, P.K.: Cytochrome P450 1A1 activity in blood lymphocytes: Evidence for expression of catalytic activity in rat blood lymphocytes. *Life Sciences* 69, 383-393, 2001 (12 citations)
24. Dayal, M., **Parmar, D.**, Dhawan, A., Dwevidi, U.N and Seth, P.K.: Induction of rat brain cytochrome P450 (P450s) by deltamethrin: Regional specificity and correlation with neurobehavioral toxicity. *Neurotoxicity Research* 3, 351-357, 2001.
25. Karchowdhuri, D., **Parmar, D.**, Kakkar, P., Shukla, R., Seth, P.K and Srimal, R.C.: Antistress effects of bacosides of Bacopa mannor: Modulation of hsp70 expression, superoxide dismutase and cytochrome P450 activity in rat brain. *Phytotherapy Resresearch* 16, 1-7, 2002.
26. Bajpayee, M., Dhawan, A., **Parmar, D.**, Pandey, A.K., Mathur, N and Seth, P.K.: Gender-related differences in basal damage in lymphocytes of a healthy Indian population using the alkaline comet assay. *Mutation Research* 520, 83-91, 2002.
27. Dey, A., **Parmar, D.**, Dhawan, A, Dash, D and Seth, P.K.: Cytochrome P450 2E1 catalytic activity and NADPH-dependent lipid peroxidation in rat blood lymphocytes. *Life Sciences* 71, 2509-2519, 2002.
28. Dayal, M., **Parmar, D.**, Dhawan, A., Dwivedi, U.N and Seth, P.K: Effect of cytochromeP450 modifiers on deltamethrin induced neurobehavioral toxicity. *Food & Chemical Toxicology* 41, 431-437, 2003.
29. **Parmar, D.**, Dayal, M and Seth, P.K.: Expression of cytochrome P450s (P450s) in brain: Physiological, pharmacological and toxicological consequences. *Proceedings of Indian National Academy of Sciences (PINSA-B)* B 69 (6), 893-916, 2003.
30. **Parmar, D.**, Yadav, S., Dayal, M., Dhawan, A and Seth, P.K.: Effect of lindane on cytochrome P450 in rat brain and liver and influence of P450 modulation in lindane induced neurotoxicity. *Food & Chemical Toxicology*.41, 1077-1087, 2003.
31. **Parmar, D.**, Yadav, S., Johri, A., Kapoor, N., Pant, A.B., Dhawan and Seth, P.K.: Toxicological consequences of modulation of brain cytochrome P450s by environmental chemicals, in *Pharmacological Perspectives of Some Toxic Chemicals*, Ed. S.J.S. Flora, J.A. Romano, S.I. Baskin and K. Sekhar, Narosa Publishing House, New Delhi, India, pp 319-341, 2004.
32. Bajpayee, M., Pandey, A.K., **Parmar, D.** and Dhawan, A: Current status of short term tests for evaluation of genotoxicity, mutagenicity and carcinogeneity of environmental chemicals and NCEs. *Toxicology Mechanisms & Methods* 15, 155-180, 2004.
33. Dey, A., Dhawan, A., Seth, P.K. and **Parmar, D.**: Evidence for cytochrome P450 2E1 catalytic activity and expression in rat blood lymphocytes. *Life Sciences* 77,

1082-1093, 2005.

34. Bajpayee, M., Pandey, A.K., **Parmar, D.**, Mathur, N., Seth, P.K and Dhawan, A.: Comet assay responses in human lymphocytes are not influenced by the menstrual cycle: a study in healthy Indian females. *Mutation Research* 565, 163-172, 2005.
35. Pandey, A.K., Bajpayee, M., **Parmar, D.**, Rastogi, S.K., Mathur, N., Seth, P.K. and Dhawan, A.: DNA damage in Lymphocytes of Rural Indian Women Exposed to Biomass Fuel Smoke as Assessed by the Comet Assay. *Environmental and Molecular Mutagenesis* 45, 435-441, 2005.
36. Patel, S., **Parmar, D.**, Gupta Y.K and Singh, M.P.: Contribution of genomics, proteomics, and single nucleotide polymorphism in toxicology research and Indian scenario. *Ind. J. Hum. Genet.* 11, 61-75, 2005.
37. Indian Genome Variation Consortium: The Indian genome Variation database (IGVdb): a project overview. *Human Genetics* 118, 1-11, 2005.
38. Pandey, A.K., Bajpayee, M., **Parmar, D.**, Rastogi, S.K., Mathur, N., Seth, P.K. and Dhawan, A.: DNA damage in Lymphocytes of Indian Rickshaw Pullers as Measured by the Alkaline Comet Assay. *Environmental & Molecular Carcinogenesis* 47, 25-30, 2006.
39. Bajpayee M, Pandey AK, Zaidi S, Musarrat J, **Parmar D**, Mathur N, Seth PK, Dhawan A.: DNA damage and mutagenicity induced by endosulfan and its metabolites. *Environ Mol Mutagen.* 47(9):682-92, 2006
40. Yadav, S, Dhawan, A., Seth, P.K. and **Parmar, D.**:Cytochrome P4503A: Evidence for mRNA expression and catalytic activity in rat brain. *Molecular & Cellular Biochemistry* 287, 91-99, 2006
41. Pandey M.K., Yadav, S., **Parmar, D** and Das, M.: Induction of hepatic Cytochrome P450 isoenzymes, benzo(a)pyrene metabolism and DNA binding following exposure to polycyclic aromatic hydrocarbon residues generated during repeated fish fried oil in rats. *Toxicol. Appl. Pharmacol.* 213, 126-134, 2006.
42. Yadav, S, Dhawan, A., Singh, R.L., Seth, P.K. and **Parmar, D.**: Expression of constitutive and inducible cytochrome P450 2E1 in rat brain. *Mol. Cell. Biochem.* 286, 171-180, 2006.
43. Kapoor, N., Pant, A.B., Dhawan, A., Dwivedi, U.N., Seth, P.K., Gupta, Y K and **Parmar, D.**: Expression of cytochrome P4502E1 in cultured rat brain cells. *Life Sciences* 79, 1514-1522, 2006.
44. Johri, A., Dhawan, A., Singh, R.L. and **Parmar, D.**: Effect of prenatal exposure of deltamethrin on the ontogeny of xenobiotic metabolizing cytochrome P450s in the brain and liver of offsprings. *Toxicol. Appl. Pharmacol.* 214, 279-289, 2006.

45. Patel, S., Pandey, A.K., Bajpayee, M., **Parmar, D** and Dhawan, A.: Cypermethrin induced DNA damage in organs and tissues of mouse: Evidence by Comet Assay. *Mutation Research, Genetic Toxicology and Environmental Mutagenesis* 607, 176-183, 2006.
46. Johri, A., Yadav, S., Singh, R.L., Dhawan, A., Mohd. Ali and **Parmar, D**: Long lasting effects of prenatal exposure of deltamethrin on cerebral and hepatic cytochrome P450s and behavioral activity in rat offsprings. *Eur. J. Pharmacol.* 544, 58-68, 2006.
47. Yadav, S., Johri, A., Dhawan, A., Seth, P.K. and **Parmar, D**: Regional specificity in deltamethrin induced cytochrome P450 expression in rat brain. *Toxicol. Appl. Pharmacol.* 217, 15-24, 2006.
48. Dey, A., Dhawan, A., Seth, P.K. and **Parmar, D** : Blood lymphocyte Cytochrome P450 3A: Evidence for expression and catalytic activity. *Life Sciences* 79, 1729-1735, 2006.
49. Kapoor, N., Pant, A.B., Dwivedi, U.N., Seth, P.K. and **Parmar, D**: Cytochrome P450 1A isoenzymes in brain cells: Expression and inducibility in cultured rat brain neuronal and glial cells. *Life Sciences* 79, 2387-2394, 2006.
50. Pant, M.C., Shah, P., Singh, A.P., Singh., M., Bhatt, M.L., Pant, R., Gupta, S., Bisht, S.S., Rastogi, M and **Parmar, D**: Association of functionally important polymorphisms of tobacco responsive cytochrome P450 and glutathione-S-transferases with head and neck cancer. *Proceedings of UICC World Cancer*, Washington, DC, 2006.
51. Sinha, A., Singh, C., **Parmar, D** and Singh, M.P.: Proteomics in clinical interventions: Achievements and limitations in biomarker development. *Life Sciences* 80, 1345-54, 2007.
52. Kapoor, N., Pant, A.B., Dwivedi, U.N., Seth, P.K. and **Parmar, D**: Cytochrome P4502B1 and 2B2 in cultured rat brain neuronal and glial cells. *Mol. Cell. Biochem.* 305, 199-207, 2007.
53. Patel, S., Bajpayee, M., Pandey, A.K., **Parmar, D** and Dhawan, A.: In vitro induction of cytotoxicity and DNA strand breaks in CHO cells exposed to cypermethrin, pendimethalin and dichlorvos. *Toxicol. In vitro* 21(8):1409-18, 2007.
54. Johri, A., Yadav, S., Dhawan, A., and **Parmar, D**: Overexpression of cerebral and hepatic cytochrome P450s alters behavioral activity of rat offspring following prenatal exposure to lindane. *Toxicol. Appl. Pharmacol.* 225, 278-292, 2007.
55. Singh, A.P., Shah, P., Mathur, N., Buters, J.T.M., Pant, M.C and **Parmar, D**: Genetic polymorphism in Cytochrome P4501B1 and susceptibility to head and neck cancer. *Mutation Research. Fundamental and Molecular Mutagenesis* 639,11-19, 2008.

56. Singh M., Shah, P Singh, A.P., Rawali, M., Mathur, M., Pant, M.C. and **Parmar, D.**: Effect of polymorphic GST genes on susceptibility to oral cancer. Mutation Research. *Fundamental and Molecular Mutagenesis* 638, 184-194, 2008.
57. Shah, P., Singh, A.P., Madhu, S., Mathur, N., Buters, J.T.M., Pant, M.C and **Parmar, D.**: Interaction of cytochrome P4501A1 genotypes with other risk factors and susceptibility to lung cancer. Mutation Research. *Fundamental and Molecular Mutagenesis* 639, 1-10, 2008.
58. Johri, A., Dhawan, A., Singh, R.L. and **Parmar, D.**: Persistence in alterations in the ontogeny of cerebral and hepatic cytochrome P450s following prenatal exposure to low doses of lindane. Toxicological Sciences 101, 331-340, 2008.
59. Singh, M., Khan, A.J, Shah, P.P., Shukla, R., Khanna, V.K and **Parmar, D.**: Polymorphism in environment responsive genes and association with Parkinson disease. Mol. Cell. Biochem. 312(1-2), 131-8, 2008.
60. Johri, A., Yadav, S., Dhawan, A and **Parmar, D.**: Responsiveness of cerebral and hepatic cytochrome P450s in rat offspring prenatally exposed to lindane. Toxicol. Appl. Pharmacol. 231, 10-16, 2008.
61. Indian Genome Variation Consortium: Genetic landscape of the people of India: a canvas for disease gene exploration. J. Genetics 87(1), 3-20, 2008.
62. Shah, P.P., Singh, A.P., Singh, M., Mathur, N., Mishra, B.N., Pant, M.C and **Parmar, D.**: Association of functionally important polymorphisms in Cytochrome P4501B1 with lung cancer. Mutation Research. *Fundamental and Molecular Mechanisms of Mutagenesis* 643, 4-10, 2008.
63. Singh, V., **Parmar, D** and Singh, M.P.: Do single nucleotide polymorphisms in xenobiotic metabolizing genes determine breast cancer susceptibility and treatment outcomes? Cancer Investigations 26, 769-783, 2008.
64. Yadav, S.S., Ruwali, M., Shah, P.P., Mathur, N., Singh, R.L., Pant, M.C and **Parmar, D.**: Association of poor metabolizers of cytochrome P450 2C19 with Head and Neck cancer and poor treatment response. Mutation Research. *Fundamental and Molecular Mechanisms of Mutagenesis* 644, 31-37, 2008.
65. Dhawan, A., Bajpayee, M and **Parmar, D.**: Comet assay: a reliable tool for the assessment of DNA damage in different models. Cell Biol Toxicol. 25, 5-12, 2009.
66. Pandey, A.K., Bajpayee, M., **Parmar, D**, Kumar, R., Rastogi, S.K., Mathur, N., Thorning, P., Matas Marcel De., Shao, Q., Anderson, D and Dhawan, A Multipronged evaluation of genotoxicity in Indian petrol-pump workers. Environ. Mol. Mutag. 49(9):695-707, 2008

67. Singh, A.P., Singh M., Shah, P., Ruwali, M., Mathur, M., Pant, M.C. and **Parmar, D.**: Association of polymorphism in cytochrome P4501A1 with head and neck cancer risk. *Cancer Investigations* 27 (8): 869-876, 2009
68. Khan, A.J., Ruwali, M., Choudhuri, G., Mathur, N., Husain, Q and **Parmar, D.**: Polymorphism in Cytochrome P450 2E1 and interaction with other genetic risk factors and susceptibility to alcoholic liver cirrhosis. *Mutation Research. Fundamental and Molecular Mechanisms of Mutagenesis* 664: 55-63, 2009.
69. Khan, A.J., Choudhuri, G., Mathur, N., Husain, Q and **Parmar, D.**: Polymorphism in glutathione-S-transferases: A risk factors in alcoholic liver cirrhosis. *Drug and Alcohol Dependence* 101, 183-190, 2009.
70. Pandey AK, Gurbani D, Bajpayee M, **Parmar D**, Ajmani S, Dhawan A. In silico studies with human DNA topoisomerase-II alpha to unravel the mechanism of in vitro genotoxicity of benzene and its metabolites. *Mutat Res. Fundamental and Molecular Mechanisms of Mutagenesis* 661, 57-70, 2009.
71. Shukla, R., Sharma, V., Saxena, N, **Parmar, D.**, Das, M and Dhawan, A: DNA damaging potential of zinc oxide nanoparticles in human epidermal cells. *Toxicol. Lett.* 185 (3), 211-18, 2009.
72. Ruwali, M., Khan, A.J., Shah, P.P, Singh, A.P., Pant, M.C. and **Parmar, D.**: Cytochrome P450 2E1 and head and neck cancer: Interaction with genetic and environmental risk factors. *Environ. Mol. Mutag* 50 (6): 473-482, 2009.
73. Dhawan, A., Sharma, V and **Parmar, D.**: Nanomaterials: A challenge for toxicologists. *Nanotoxicology* 3, 1-9, 2009
74. Ruwali, M., Pant, M.C, Shah, P.P, Mishra, B.N and **Parmar, D.**: Polymorphism in cytochrome P450 2A6 and glutathione S-transferase P1 modifies head and neck cancer risk and treatment outcome. *Mutat Res. Fundamental and Molecular Mechanisms of Mutagenesis* 669, 36-41, 2009.
75. Shah, P.P., Kumar Saurabh, Pant, M.C., Mathur, N and **Parmar, D.**: Evidence for increased cytochrome P4501A1 expression in blood lymphocytes of lung cancer patients. *Mutation Research. Fundamental and Molecular Mechanisms of Mutagenesis* 670, 74-78, 2009.
76. Dhawan, A, Bajpayee, M and **Parmar D**: The Comet assay: A versatile tool for assessing DNA damage in *The Comet Assay in Toxicology*, Eds. Dhawan A and Andersoon A, RSC Publishing, Cambridge, CB4 0WF, UK, 2009, pp. 3-53.
77. Dhawan, A, Bajpayee, M and **Parmar D**: Detection of DNA damage in Drosophila and Mouse in *The Comet assay in Toxicology*. Eds. Dhawan A and Andersoon A, RSC Publishing, Cambridge, CB4 0WF, UK, 2009, pp. 151-170.
78. Yadav, S.S., Ruwali, M., Pant, M.C., Shukla, P., Singh, R.L and **Parmar, D.**: Interaction of drug metabolizing cytochrome P450 2D6 poor metabolizers with

cytochrome P450 2C9 and 2C19 genotypes modify the susceptibility to head & neck cancer and treatment response. *Mutation Research. Fundamental and Molecular Mechanisms of Mutagenesis* 684, 49-55, 2010.

79. Singh, M., Khanna, V.K., Shukla, R and **Parmar, D**: Association of poor metabolizers of cytochrome P450 2D6(CYP2D6) and N-acetyltransferase-2 (NAT2) with Parkinson's disease. *Disease Markers* 28, 87-93, 2010.
80. Singh K, Singh S, Singhal NK, Sharma A, **Parmar D**, Singh MP: Nicotine- and caffeine-mediated changes in gene expression patterns of MPTP-lesioned mouse striatum: Implications in neuroprotection mechanism. *Chem Biol Interact.* 29;185(2):81-93, 2010.
81. K. Saurabh, Sharma, A., Yadav, S and **Parmar, D**: Polycyclic aromatic hydrocarbon metabolizing cytochrome P450s in freshly prepared uncultured peripheral rat blood lymphocytes. *Biochem. Pharmacol.* 79, 1182-88, 2010.
82. Khan, A.J., Husain, Q, Choudhuri, G and **Parmar, D**: Association of polymorphism in alcohol dehydrogenase and interaction with other genetic risk factors with alcoholic liver cirrhosis. *Drug and Alcohol Dependence* 109, 190-197, 2010.
83. Ruwali M, **Parmar D**: Association of functionally important polymorphisms in cytochrome P450s with squamous cell carcinoma of head and neck. *Indian J Exp Biol.* 48(7):651-65, 2010 (Review).
84. Khan, A.J., Sharma, A., Choudhuri, G and **Parmar, D**: Blood lymphocyte cytochrome P450 2E1: A biomarker to predict early stage alcoholic liver cirrhosis. *Alcohol* 45(1):81-7, 2011.
85. Singh, A.P., Pant, M.C., Ruwali, M., Shah, P.P., Prasad R., Mathur, N and **Parmar, D**: Polymorphism in Cytochrome P450 1A2 and their interaction with risk factors in determining risk of squamous cell lung carcinoma in men. *Cancer Biomarkers* 8(6):351-9, 2011.
86. Paul S, Pant MC, **Parmar D**, Verma J: Association and treatment response to capecitabine-based chemoradiotherapy with CYP2C9 polymorphism in head and neck cancer. *Ind. J Cancer* 48(2):223-9, 2011.
87. Ruwali, M., Singh, M., Pant, M.C and **Parmar, D**: Polymorphism in glutathione S-transferases: Susceptibility and treatment outcome for head and neck cancer. *Xenobiotica* 41, 1122-30, 2011.
88. Yadav, S., Pandey, A., Shukla, A., Talwelkar, S.S., Kumar, A., Pant, A.B and **Parmar, D**: MiR-497 and miR-302b regulate ethanol induced neuronal cell death through BCL2 and cyclin D2. *J. Biol. Chem.* 286(43):37347-57, 2011
89. Saurabh, K and **Parmar, D**: Blood lymphocyte cytochrome P450 2B1/2B2: A biomarker to monitor CYP2B-levels in tissues. *Biomarkers* 16 (8), 649-656, 2011.

90. Sharma, A., Saurabh, K., Yadav, S., Jain, S.K and **Parmar, D**: Ethanol induced induction of cytochrome P450 2E1 and activation of mitogen activated protein kinases in peripheral blood lymphocytes. *Xenobiotica* 42(4):317-26, 2012.
91. Srivastava, A., Yadav, S., Sharma, A., Dwivedi, U.N., Flora, S.J.S & **Parmar, D**: Similarities in diesel exhaust particles induced alterations in expression of cytochrome P-450 and glutathione S-transferases in rat lymphocytes and lungs. *Xenobiotica* 42(7):624-32, 2012.
92. Sankhwar ML, Yadav RS, Shukla RK, Pant AB, Singh D, **Parmar D** and Khanna VK: Impaired cholinergic mechanisms following exposure to monocrotophos in young rats. *Hum Exp Toxicol.* 31(6):606-16, 2012
93. Shukla P, Gupta D, Pant MC and **Parmar D**: CYP 2D6 polymorphism: a predictor of susceptibility and response to chemoradiotherapy in head and neck cancer. *J Cancer Res Ther.* 8(1):40-5, 2012.
94. Sharma A, Dinesh K, Yadav S, Jain SK, Pant MC and **Parmar D**: Cytochrome P450 2A isoenzymes in freshly prepared blood lymphocytes isolated from rats and validation as a biomarker for clinical studies in humans. *Xenobiotica* 43(4):311-9, 2013.
95. Sharma, A., Saurabh, K., Yadav, S., Jain, SK and **Parmar, D**: Expression profiling of selected genes of toxication and detoxication pathways in peripheral blood lymphocytes as a biomarker for predicting toxicity of environmental chemicals. *International Journal of Hygiene and Environmental Health* 2012 Dec 26. doi:pii: S1438-4639(12)00135-6. 10.1016/j.ijheh.2012.11.002. [Epub ahead of print].
96. Shukla A, Mohapatra TM, Agrawal AK, **Parmar D** and Seth K: Salsolinol Induced Apoptotic Changes in Neural Stem Cells: Amelioration by Neurotrophin Support. *Neurotoxicol.* 2012 Dec 20. pii: S0161-813X(12)00306-3. doi: 10.1016/j.neuro.2012.12.005.
97. Mishra, A., Sanghi, D., Sharma, AC., Raj, S., Maurya, SS., Awasthi, S., Singh, A., **Parmar, D** and Srivastava, R.N.: Association of polymorphism in growth and differentiation factor 5 gene with Osteoarthritis knee. *Am. J. Biochem. Biotech.* 9, 1-7, 2013.
98. Singh, A., Yadav, S., Srivastava, V., Kumar, R., Singh, D., Sethumadhavan, R and **Parmar, D**: Imprinting of cerebral and hepatic cytochrome P450s in rat offsprings exposed prenatally to low doses of cypermethrin. *Molecular Neurobiol.* 48 (1), 128-140, 2013
99. Kazmi, H., Chandra, A., Nigam, J., M, Noushif., **Parmar, D** and Gupta, V.: Prognostic significance of K-ras codon 12 mutation in patients with resected gall bladder cancer. *Digestive Surgery* 30(3):240-246, 2013.

100. Mudiam, M.K.R., Jain, R., Singh, A., Khan, H.A. and **Parmar, D.**: Development of ultrasound assisted-dispersive liquid-liquid microextraction-large volume injection-gas chromatography-tandem mass spectrometric method for the determination of pyrethroid metabolites in brain of cypermethrin treated rats. *Forensic Science* DOI 10.1007/s11419-013-0196-3.
101. Khan, AJ., Sharma, A., Dinesh, K and **Parmar, D**: Similarities in lindane induced alterations in cytochrome P450s and associated signaling events in peripheral blood lymphocytes and brain. *Food & Chemical Toxicology* (In Press).
102. Yadav, SS., Seth, S., Khan, AJ., Maurya, SS., Dhawan, A., Pant, S., Pant, MC and **Parmar, D**: Association of polymorphism in cytochrome P450 2C9 with susceptibility to head and neck cancer and treatment outcome. *Applied & Translational Genomics* (In Press).
103. Maurya, SS., Dhawan, A., Jain, SK., Pant, MC and **Parmar,D**: Polymorphism in drug metabolizing enzymes and risk to head & neck cancer: Evidence for gene-gene and gene-environment interaction. *Environmental & Molecular Mutagenesis* (Communicated).
104. Srivastava, A., Sharma, A., Flora, S.J.S., Dwivedi, UN & **Parmar, D.**: Gene expression profiling of candidate genes in peripheral blood lymphocytes for predicting toxicity of diesel exhaust particles. *Free Rad. Biol. Med.* (Communicated).

Projects handled and currently pursuing

1. **Title of project:** Identification and validation of early biomarkers for predicting toxicity including pre-carcinogenic lesions in individuals exposed occupationally to polycyclic aromatic hydrocarbons (PAHs) and through tobacco use.
Sponsoring Agency: ICMR, N. Delhi.
Duration of project: 3 Years (w.e.f October 2012).
2. **Title of project:** Indo-German project on Lindane induced gene expression profiles in brain and blood lymphocytes as biomarkers of exposure and effects.
German collaborator: Prof. Peter Roos, Institute for Occupational Physiology, University of Dortmund, Dortmund, Germany.
Sponsoring Agency: ICMR, N. Delhi.
Duration of project: 2 Years (March 2009-2011).
3. **Title of project:** Development of Biomarkers for Predicting Exposure to Diesel Exhaust Particles (DEPs) by Gene Expression Profiling.
Funding Agency: Defence Research & Development Establishment (DRDE), DRDO, Gwalior.
Duration of project: 2 Years (w.e.f March 2007).
4. **Title of project:** Indo-US project on Blood cytochrome P450s: Biomarker of chemical exposure and effect.

US collaborator: Dr. M. Cunningham, National Centre for Toxicogenomics, National Institute of Environmental Health Sciences (NIEHS), U.S.A
Funding Agency: ICMR, N. Delhi.
Duration of project: 3 Years (w.e.f March 2006).

5. **Title of project:** Genetic and Environmental Interactions in Parkinson's Disease.
Funding Agency: ICMR, N. Delhi.
Duration of project: 3 Years (w.e.f March 2006).
6. **Title of project:** Fingerprints of Polycyclic aromatic Hydrocarbon (PAH) Responsive Cytochrome P450 genes as a Biomarker of Squamous Cell Carcinoma of Lung
Funding agency: ICMR, New Delhi.
Duration of project: 3 years (w.e.f 2004).
7. **Title of project:** Modulation in cytochrome P450 mRNA and protein expression following exposure to deltamethrin and lindane: Long term effects and role of 450 mediated metabolism in the neurobehavioral toxicity of deltamethrin and lindane.
Funding agency: Department of Biotechnology, New Delhi.
Duration of project: 3 years (w.e.f Oct. 2000).
8. **Title of project:** Indo-German project on Transfection of rat brain cytochrome P450 cDNA in V79 Chinese hamster cells or other suitable cell lines.
Sponsoring Agency: DLR, Germany.
Collaboarting Laboratory: Prof. Johannes Doehtmer, Head, Molecular Toxicology, Technical University, Munich.
Duration of Project: 3 years (w.e.f. Aug. 1996- Dec. 1998)