## **Publications during last Five Years**

Gupta SC, Siddique HR, Mitra K, Mathur N, Mishra RK, Saxena DK and **Kar Chowdhuri D** (2007) Adverse effect of organophosphate compounds dichlorvos and chlorpyrifos in the reproductive tissues of transgenic Drosophila melanogaster: 70kDa heat shock protein as a marker of cellular damage. Toxicology 238:1-14.

Gupta SC, Siddique HR, Mathur N, Vishwaskarma AL, Mishra RK, Saxena DK and **Kar Chowdhuri D** (2007) Induction of hsp70, alterations in oxidative stress and apoptosis against dichlovos exposure in transgenic Drosophila melanogaster: modulation by reactive oxygen species. Biochim. Biophys. Acta 1770: 1382-1394.

Rastrogi S, Shukla, Paul BN, **Chowdhuri DK**, Khanna SK and Das M (2007) Protective effect of Ocimum sanctum on 3-methylcholanthrene, 7,12-dimethylbenz(a)anthracene and aflatoxin B1 induced skin tumorigenesis in mice. Toxicol. Appl. Pharmacol. 224: 228-240.

Siddiqui HR, Gupta SC, Mitra K, Murthy RC, Saxena DK and **Chowdhuri DK** (2007) Induction of biochemical stress markers and apoptosis in transgenic Drosophila melanogaster against complex chemical mixtures: Role of reactive oxygen species. Chemico-Biol. Interact. 169: 171-188.

Bhargav D, Singh MP, Murthy RC, Mathur N, Misra D, Saxena DK and **Kar Chowdhuri D** (2008) Toxic potential of municipal solid waste leachates in transgenic Drosophila melanogaster (hsp70-lacZ): hsp70 as a marker of cellular damage. Ecotox. Environ. Safety 69: 233-245.

Siddique HR, Gupta SC, Mitra K, Bajpai VK, Mathur, Murthy RC, Saxena DK and **Kar Chowdhuri D** (2008) Adverse effect of tannery waste leachates in transgenic Drosophila melanogaster: role of ROS in modulation of Hsp70, oxidative stress and apoptosis. J. Appl. Toxicol. 28: 734-748

Siddique HR, Sharma A, Gupta SC, Murthy RC, Dhawan A, Saxena DK and **Kar Chowdhuri D** (2008) DNA damage induced by industrial solid waste leachates in Drosophila melanogaster: A mechanistic approach. Environ. Molec. Mutagenesis 49: 206-216.

Pomerai D, Madhamshettiwar P, Anbalagan C, Haque M, Loose M, King J, **Kar Chowdhuri D**, Sinha P, Johnson B and Baillie D (2008) The stress response network in animals: proposals to develop a predictive mathematical model. Open Toxicol. J. 2: 71-76.

Singh MP, Reddy MM, Mathur N, Saxena DK, **Kar Chowdhuri D** (2009) Induction of hsp70, hsp60, hsp83, and hsp26 and oxidative stress markers in benzene, toluene and xylene exposed Drosophila melanogaster: role of ROS generation. Toxicol. Appl. Pharmacol. 235: 226-243. (*Top 25 hot articles of the Journal Sr. No. 18*)

Siddique HR, Mitra K, Bajpai VK, KR Ram, Saxena Dk and **Kar Chowdhuri D** (2009) Hazardous effect of tannery solid waste leachates on development and reproduction in

Drosophila melanogaster: 70kDa heat shock protein as a marker of cellular damage. Ecotox. Environ. Safety (*Highlighted article*): 72: 1652-1662.

Gupta SC, Sharma A, Mishra M, Mishra RK, **Kar Chowdhuri D** (2010) Heat shock proteins in toxicology: How close and how far? (Mini Review) Life Sciences 86: 377-84.

Singh MP, Ravi Ram K, Mishra M, Shrivastava M, Saxena DK, **Kar Chowdhuri D** (2010) Effects of co-exposure of benzene, toluene and xylene to Drosophila melanogaster: alteration in hsp70, hsp60, hsp83, hsp26, ROS generation and oxidative stress markers. Chemosphere 79: 577-587.

Reddy MK, Singh MP, Murthy RC and **Kar Chowdhuri D** (2010) Quantitative evaluation of benzene, toluene, xylenes in the larvae of Drosophila melanogaster by solid phase microextration/gas chromatography-mass spectrometry for potential use in toxicological studies. J AOAC International 93: 1595-9.

Gupta SC, Mishra M, Sharma A, TGR Balaji D, Kumar R, Mishra RK, **Kar Chowdhuri D** (2010) Chlorpyrifos induces apoptosis and DNA damage in Drosophila through generation of reactive oxygen species. Ecotoxicology & Environmental Safety, 73: 1415-1423.

Sharma A, Mishra M, Ravi Ram K, Abdin MZ, **Kar Chowdhuri D** (2011) Transcriptome analysis provides insights for understanding the adverse effects of endosulfan in Drosophila melanogaster. Chemosphere, 82: 370-376.

Tiwari AK, Prakash P, Ravi Ram K, **Kar Chowdhuri D** (2011) Environmental chemical mediated male reproductive toxicity: Drosophila melanogaster as an alternate animal model. Theriogenology 76: 197-216.

Sharma A, Mishra M, Shukla AK, **Kar Chowdhuri D** (2011) Validation and application of Drosophila melanogaster as an in vivo model for the detection of double strand breaks by neutral Comet assay. Mutation Research - Genetic Toxicology and Environmental Mutagenesis, 721: 142-146.

Goyal R, Tripathi SK, Tyagi S, Ram KR, Ansari KM, Shukla YK, **Chowdhuri DK**, Kumar P, Gupta KC (2011) Gellan Gum Blended PEI Nanocomposites as Gene Delivery Agents: Evidences from in vitro and in vivo Studies. Eur J Pharm Biopharm. 79: 3-14.

Singh MP, Mishra M, Sharma A, Shukla AK, Mudian MKR, Patel DK, RaviRam K and **Kar Chowdhuri D** (2011) Geneotoxicity and apoptosis in Drosophila melanogaster by benzene, toluene and xylene: attenuation by quercetin and circumin. Toxicology Applied Pharmacology 253: 14-30.

Mishra M, Sharma A, Negi MPS, Dwivedi UN, **Kar Chowdhuri D** (2011) Tracing the tracks of genotoxicity by trivalent and hexavalent Chromium in Drosophila melanogaster. Mutation Research - Genetic Toxicology and Environmental Mutagenesis. 722: 44-51.

Tripathi SK, Goyal R, Ansari KM, Ravi Ram K, Shukla Y, **Chowdhuri DK**, Gupat KC (2011). Polygutami c acid-based nanocomposites as efficient non-viral gene carriers in vitro and in vivo. Eur J Pharm Biopharm. 79: 473-484.

Shukla AK, Prakash P and **Chowdhuri DK** (2011) A modified alkaline Comet assay for in vivo detection of oxidative DNA damage in Drosophila melanogaster. Mutation Research - Genetic Toxicology and Environmental Mutagenesis. 726: 222-226.

Goyal R, Tripathi SK, Tyagi S, Sharma A, Ravi Ram K, **Chowdhuri DK**, Shukla, Y, Kumar P, Gupta KC (2011) Linear PEI nanoparticles: efficient pDNA/siRNA carriers in vitro and in vivo. Nanomedicine:Nanotechnology, Biology and Medicine, 8:167-175.

Sharma A, Mishra M, Shukla AK, Kumar R, Abdin MK and **Kar Chowdhuri D** (2012) organochlorine pesticide, endosulfan induced cellular and organismal response in Drosophila melanogaster. Journal of Hazardous Materials. 221-222: 275-287.

Pandey A, Chandra S, Chauhan LK, Narayan G, **Kar Chowdhuri D** (2013) Cellular internalization and stress response of ingested amorphous silica nanoparticles in the midgut of Drosophila melanogaster. Biochim Biophys Acta. 1830: 2256-2266.

Anbalagan C, Lafayette I, Antoniou-Kourounioti M, Gutierrez C, Martin JR, Chowdhuri DK, De Pomerai DI. (2013) Use of transgenic GFP reporter strains of the nematode Caenorhabditis elegans to investigate the patterns of stress responses induced by pesticides and by organic extracts from agricultural soils. Ecotoxicology. 22: 72-85.