



CURRICULUM VITAE of Dr. Zhou Xin (Zhouxin@impcas.ac.cn)

Name: Zhou Xin

Academic qualifications:

2001-2005 B. Southwest University, Chongqing, China

2005-2008 M. Sichuan University, Sichuan, China

2009-2012 Ph.D Institute of Modern Physics, Chinese Academy of Sciences, Lanzhou, China

Present academic position:

2014- Associate Professor (By courtesy) Institute of Modern Physics, Chinese Academy of Sciences

Previous relevant research work:

- Mitochondrial metabolism
- DNA damage response
- Molecular basis of Aging
- The biological effects of quantum dots

Representative publication in the past five years

1. **Zhou X**, Wang Y, Si J, Zhou R, Gan L, Di C, Xie Y, Zhang H. Laser controlled singlet oxygen generation in mitochondria to promote mitochondrial DNA replication in vitro. *Sci Rep.* 2015 Nov 18;5:16925.
2. Zhao Q, Mao A, Yan J, Sun C, Di C, **Zhou X**, Li H, Guo R, Zhang H. Downregulation of Nrf2 promotes radiation-induced apoptosis through Nrf2 mediated Notch signaling in non-small cell lung cancer cells. *Int J Oncol.* 2016 Feb;48(2):765-73.
3. Di CX, Han L, Zhang H, Xu S, Mao AH, Sun C, Liu Y, Si J, Li HY, **Zhou X**, Liu B, Miao GY. Diallyl disulfide attenuated carbon ion irradiation-induced apoptosis in mouse testis through changing the ratio of Tap73/ Δ Np73 via mitochondrial pathway. *Sci Rep.* 2015 Nov 3;5:16020.
4. Mao A, Liu Y, Wang Y, Zhao Q, **Zhou X**, Sun C, Di C, Si J, Gan L, Zhang H. miR-449a enhances radiosensitivity through modulating pRb/E2F1 in prostate cancer cells. *Tumour Biol.* 2015 Oct 31.
5. **Zhou X**, Ma X, Wang Z, Sun C, Wang Y, He Y, Zhang H. Radiation-induced hyperproliferation of intestinal crypts results in elevated genome instability with inactive p53-related genomic surveillance. *Life Sci.* 2015 Dec 15;143:80-8.
6. Zhou R, Zhang H, Wang Z, **Zhou X**, Si J, Gan L, Li J, Liu Y. The developmental toxicity and apoptosis in zebrafish eyes induced by carbon-ion irradiation. *Life Sci.* 2015 Oct 15;139:114-22.
7. Li H, Zhang H, Di C, Xie Y, **Zhou X**, Yan J, Zhao Q. Comparative proteomic profiling and possible toxicological mechanism of acute injury induced by carbon ion radiation in pubertal mice testes. *Reprod Toxicol.* 2015 Dec;58:45-53.
8. Sun C, Wang ZH, Liu XX, Yang LN, Wang Y, Liu Y, Mao AH, Liu YY, **Zhou X**, Di CX, Gan L, Zhang H. Disturbance of redox status enhances radiosensitivity of hepatocellular carcinoma. *Am J Cancer Res.* 2015 Mar 15;5(4):1368-81.
9. Wang ZG, Zhou R, Jiang D, Song JE, Xu Q, Si J, Chen YP, **Zhou X**, Gan L, Li JZ, Zhang H, Liu B. Toxicity of Graphene Quantum Dots in Zebrafish Embryo. *Biomed Environ Sci.* 2015 May;28(5):341-51.
10. Wang Y, Sun C, Mao A, Zhang X, **Zhou X**, Wang Z, Zhang H. Radiosensitization to X-ray radiation by telomerase inhibitor MST-312 in human hepatoma HepG2 cells. *Life Sci.* 2015 Feb 15;123:43-50.
11. Liu Y, Zhang L, Liu Y, Sun C, Zhang H, Miao G, Di CX, **Zhou X**, Zhou R, Wang Z. DNA-PKcs deficiency inhibits glioblastoma cell-derived angiogenesis after ionizing radiation. *J Cell Physiol.* 2015 May;230(5):1094-103.
12. Xie Y, Zhao QY, Li HY, **Zhou X**, Liu Y, Zhang H. Curcumin ameliorates cognitive deficits heavy ion irradiation-induced learning and memory deficits through enhancing of Nrf2 antioxidant signaling pathways. *Pharmacol Biochem Behav.* 2014 Nov;126:181-6.
13. **Zhou X**, Zhao Y, Zhou R, Zhang H. Suppression of *E. multilocularis* hydatid cysts after ionizing radiation exposure. *PLoS Negl Trop Dis.* 2013 Oct 24;7(10):e2518.
14. Li HY, Zhang H, Miao GY, Xie Y, Sun C, Di CX, Liu Y, Liu YY, Zhang X, Ma XF, Xu S, Gan L, **Zhou X**. Simulated microgravity conditions and carbon ion irradiation induce spermatogenic cell apoptosis and sperm DNA damage. *Biomed Environ Sci.* 2013 Sep;26(9):726-34.
15. **Zhou X**, Zhang X, Xie Y, Tanaka K, Wang B, Zhang H. DNA-PKcs inhibition sensitizes cancer cells to carbon-ion irradiation via telomere capping disruption. *PLoS One.* 2013 Aug 27;8(8):e72641.
16. **Zhou X**, Liu X, Zhang X, Zhou R, He Y, Li Q, Wang Z, Zhang H. Non-randomized mtDNA damage after ionizing radiation via charge transport. *Sci Rep.* 2012;2:780.
17. Sun C, Zhang H, Ma XF, **Zhou X**, Gan L, Liu YY, Wang ZH. Isoliquiritigenin enhances radiosensitivity of HepG2 cells via disturbance of redox status. *Cell Biochem Biophys.* 2013 Apr;65(3):433-44.
18. Zhang X, **Zhou X**, Chen R, Zhang H. Radiosensitization by inhibiting complex I activity in human hepatoma HepG2 cells to X-ray radiation. *J Radiat Res.* 2012;53(2):257-63.

19. **Zhou X**, Li N, Wang Y, Wang Y, Zhang X, Zhang H. Effects of X-irradiation on mitochondrial DNA damage and its supercoiling formation change. *Mitochondrion*. 2011 Nov;11(6):886-92.

Granted projects as principal investigator (In the last 5 years)

1. Reactive oxygen species mediated mitochondrial DNA replication. NSFC. 2014. RMB 285000.
2. Suppression of *E. multilocularis* hydatid cysts after heavy-ion exposure . 2012. Western light. RMB 100000

Awarded Prizes and Patents

1. Scientific and technological progress award of Gansu province, 2010
2. Scientific and technological progress award of Gansu province, 2014
3. A method to develop quantum dots based biological imaging agent. Patent number: CN103482605 A