

9th World Congress on

Chemistry and Medicinal Chemistry

May 13-14, 2019 | Prague, Czech Republic

Engineered Metal Oxide Nanoparticles, Nano-Bio Interaction and Toxicology

Muhammad Furqan Danish
Antalya Bilim University, Turkey

Metal oxide nanoparticles (NPs) are usually utilized nanomaterials. The Nano-level size offer these metal oxides capability of novel properties resulting in top of the line advancements as well as in customer arranged applications. Nanotechnology is most recent undertaking, which has progressed hugely in most recent couple of years, however regardless it needs well laid rules and top to bottom toxicological investigations. How these metal oxide NPs and their ionic structure will respond in fluctuating organic interface and long-haul impacts are not very much characterized? In our exploration we have made an endeavor to think about the intense and ceaseless impacts of the normally utilized metal oxide nanoparticles, Al₂O₃ NPs and ZnO NPs in *Drosophila melanogaster*. The presentation portion incorporates 0.1-1mM NPs in *Drosophila* diet and flies were uncovered all through their life expectancy. Toxicological impacts post presentation was assessed on different parameters like: climbing capacity, fruitfulness, life expectancy, oxidative pressure, apoptosis and rate of deviant phenotype in ensuing ages. Critical

decrease in climbing capacity was seen in parent flies on seven days introduction to these NPs. Critical increment in receptive oxidative species and apoptotic cells was seen in hatchlings hemocytes through DCF-DA and TUNEL test. Particular abnormal phenotypic changes like twisted portioned thorax, loss of wing, distorted body symmetry was seen in resulting age on ZnO NPs presentation. Perpetual introduction of Al₂O₃ NPs brought about flies with pigmented and sectioned thorax and disfigured legs. Our perceptions obviously delineated that these nanoparticles can make negative impacts consequent ages.

Speaker Biography

Muhammad Furqan Danish done BS organic chemistry from Pakistan. He completed his thesis work on the topic of synthesis of nanoparticles from sea weeds. He has 2 years pharmaceutical experience as a quality control analyst and handling multi instruments in pharmaceutical industry. And then he came turkey for higher education and got an admission Antalya Bilim University and doing MBA.

e: danish.furqan@yahoo.com

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