

## 7<sup>th</sup> Global Summit on **Cancer Therapy**

October 05-07, 2015 Dubai, UAE

### ***AATF* genome: Importance in oncogenesis**

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**H**uman *AATF* genome, that holds *AATF* gene and its encoded miR-2909 within its fold, assumed huge importance recently not only because *AATF* gene-product links transcriptional regulation, cell cycle control and DNA damage response but also miR-2909 ensures cellular aerobic-glycolysis by shunting pyruvate out of mitochondria through decoupling of glycolysis from aerobic-respiration. A new dimension was added by the recent finding from our laboratory that revealed the conspicuous existence of 23 kDa truncated *AATF* protein within human cancer cells derived from different tissue origin. This truncated *AATF* protein had the ability to recruit its unique interactome consisting of the partners such as *SPI*, *DNMT3B* and *Par4* to ensure repression of vital genes involved in tumor suppression as well as survival thereby defining the destiny of these cells to become and remain cancerous. Further, sustained cellular miR-2909 surge ensures sustained aerobic-glycolysis within cancer cells leading them to secrete lactate that not only insulates these cells from the cytotoxic NK cells and CD8+ T-cells but also starves these cytotoxic cells to death through deprivation of glucose. Hence aberration in *AATF* genome within cancer cells can create a situation that favors immune privilege with cellular unbridled growth and Immortality.

### **Biography**

Deepak Kaul has obtained his PhD degree from Premier Indian Medical Institute "AIIMS", New Delhi. His original contributions in the field of "Molecular Medicine" have not only added a new dimension to the understanding of human diseases at the molecular level but also attracted international recognition and acclaim. Presently, he is serving for "Post Graduate Institute of Medical Education & Research" Chandigarh, as a Professor and Head, Experimental Medicine & Biotechnology Department. He has mentored about 27 PhD students and also serves as an Editorial Board Member of reputed international medical journals.

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