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## Identification and characterization of molecular targets of Tris DBA [tris(dibenzylideneacetone) dipalladium (0)] for cancer therapy

Loukik Arora<sup>1</sup>, Shireen Vali<sup>2</sup>, Taher Abbasi<sup>2</sup>, Alan Prem Kumar<sup>1</sup> and Gautam Sethi<sup>1</sup> <sup>1</sup>Yong Loo Lin School of Medicine, National University of Singapore, Singapore <sup>2</sup>Cellworks Group Inc., USA

Cancer is complex disease involving complex genetic and epigenetic heterogeneity making it the second leading cause of mortality globally after cardiovascular disorders. While conventional treatments like surgery, radiotherapy, chemotherapy remain principal treatment strategies, the focus is gradually shifting towards anti-cancer therapies that can target multiple oncogenic pathways simultaneously. In the present report, we hypothesized that Tris DBA, an organopalladium compound, might inhibit proliferation, invasion and migration, and induce apoptosis in multiple myeloma (MM) and hepatocellular carcinoma (HCC) cells, thereby potentially exhibiting a broad spectrum of anticancer effects. Our preliminary results indicate that Tris DBA could substantially inhibit both constitutive and IL-6 inducible STAT3 activation and abrogate proliferation/ survival of MM/HCC cells without displaying any adverse side effects in nu/nu mice. In future work, we aim to investigate the possible molecular targets of Tris DBA and further characterize the molecular mechanism(s) underlying its STAT3 inhibitory effects in both MM and HCC cells.

## Biography

Loukik Arora has completed his Masters in Biomedical Science from University of Delhi, Delhi, India. He is currently a PhD student in Department of Pharmacology, YLLSoM, National University of Singapore. His current research focuses on pharmacology of trisDBA and its anticancer properties.

arora.loukik@u.nus.edu

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