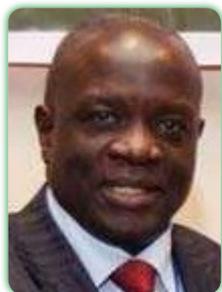


3<sup>rd</sup> International Conference on

# FOOD CHEMISTRY & NUTRITION

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### **Rethinking the link between environment, nutrition, human immunity, aids and cancer– A possible game changing perspective from kenya and beyond**

The hypothesis that the cause of Acquired Immune Deficiency Syndrome (AIDS) is HIV only has been problematic for decades. Consequently, a review of selected bioanalytical/chemical studies on AIDS in Kenya and beyond shows that nutritional interventions, though neglected, play a critical role in management of this disease. From these studies, micronutrient zinc stands out and in consistency with the scientific literature as a critical immuno-modulator. In one of the studies in Kenya, low optical density of HIV antibodies correlated with high serum zinc levels ( $p = 0.008$ ) as significant reduction of viral load correlated with high optical densities of HIV antibodies ( $p = 0.016$ ); suggesting that lowering of serum zinc is physiological and enables viral load reduction. Furthermore, studies in the USA have shown that when the human immune system is overwhelmed by pathogens, it switches from innate (Th-1) to humoral (Th-2) immunity; an earlier study in Europe having shown micronutrient zinc deficiency to be the key that effects this switch. Other studies have implicated exposure to dioxins and mycotoxins in the elevated risk of HIV infection while HIV-free AIDS individuals have been reported and genetic and environmental factors implicated, partly agreeing with an earlier observation that malnutrition and chemicals are the cause of AIDS. These studies do suggest that susceptibility to AIDS and cancer significantly correlates with nutritional and environmental parameters, HIV included. Therefore, a re-think of AIDS causation to provide for a more inclusive/unified hypothesis is indicated and has potential to unleash wholistic and game-changing strategies of combating AIDS and cancer befitting of evidence-guided and finer scientific thinking in the 21st Century.

#### **Biography**

Charles Mbakaya holds a PhD in Analytical/Food Chemistry from Kenyatta University and is an Associate Professor and Agriculture Department Dean; School of Science Technology and Engineering, Rongo University, Kenya.

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