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Webinar

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Development in Plant -derived Therapeutic Vaccines and Molecular Approach to Cancer Treatment in Africa

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Cancer still remains a major cause of death worldwide and especially in Africa despite many therapies and treatment modalities available especially the introduction of Human papillomavirus (HPV) vaccines in the developing world. In this review an attempt was made to dwell into recent plant- derived therapeutic vaccines especially those that are able to prime antigen-specific T cells and reprogramming memory T cells. Current efforts are on dendritic cells (DCs) that essentially generate immune responses thereby representing targets and vectors for vaccination. Even though this approach is facing constraints of complexity of human B and T cell mechanisms coupled with difficulties involved with immune recognition and action, and evidently patients with a low tumor burden tend to benefit. Tentative discussions were made on increase knowledge of cancer Immunotherapy and improved methods of routine check of cellular immune function after vaccination. Recent successful phase III clinical trials showing benefit to the patients revived cancer vaccines was also expatiated. Molecular approach to antigen-specific immunization for cancer using tumor-derived proteins or RNA, or synthetically generated peptide epitopes, RNA, or DNA, including areas of biomarkers and cancer vaccines were also concisely discussed. Further conflict and reconciliatory development of a cancer vaccine that can present different considerations for clinical trial design than development of a more traditional biological product or cytotoxic drug for the treatment

of cancer was emphasized. Focus was also made on the challenge for researchers in the use of model of the immune response to viral infection of cells to develop vaccines for cancers not caused by viruses. Some other selected tools to harness the immune system to fight cancer were overviewed in anticipation of wave of plant-derived cancer vaccine approvals.

Keywords: Cancer, viruses, plant- derived vaccines, immunology, and recombinant DNA

Biography

Aliyu Ahmad Warra A Senior Researcher and Presently the Ag. Director Centre for Entrepreneurial Development, Federal University, Gusau, Nigeria. A recipient of commendation from Federal University Gusau for introducing practical component of the Entrepreneurship programme. An expert on plant products development and entrepreneurship. A Fellow of the Institute of Chartered Chemists of Nigeria, Fellow Institute of Classic Entrepreneurship, Nigeria (FCent), Associate and member of many professional and scientific organizations. He wrote many books which were published, he has also published many papers in National and International reputable Journals.

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