## 8<sup>th</sup> Annual Congress on CLINICAL MICROBIOLOGY & INFECTIOUS DISEASES

## 13<sup>th</sup> World Congress on & **W** VIROLOGY, INFECTIONS AND OUTBREAKS

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## Topic contribution of immunology in preventing infectious diseases

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**Statement of the problem:** Infectious disease vaccine currently licensed for human use have taken various approaches to achieve stimulation of the specific immune response. This can broadly be divided into four categories according to the type of antigen they contain. Namely inactivated, live attenuated, subunit and virus-like particles (VLP). Inactivated vaccine use the microorganism responsible for the disease but in a killed form after treatment by a chemical or physical agent like heat or radiation, some of the first was made in this way, however, they carried the risk of incomplete inactivation. Some of the problems of inactivated vaccine can be overcome by using live attenuated organisms, such as yellow fever and measles vaccine. By serially passing the pathogen in tissue culture, strain emerge that have lost their genes relating to pathogen I city virulence and immune evasion as they are no longer needed. These strains are then safe to inject into a healthy host where they retain their immunogenicity but are unable to cause disease. Subunit vaccine work by stimulating immunity towards just parts of parts of the pathogen with the hope that they will be sufficient to protect the host while being safer or more widely applicable than the attenuated vaccine.

**Conclusion:** In the last 200 years, the practice of vaccination was an empirical science, which used approaches that do not require a detailed knowledge of individual antigen or the cellular immune response elucidated. Despite that very conventional culture methods. However, these strategies are no longer enough to rapidly address Novel and emerging infectious disease like HIV, pandemic influenza malaria and TB. An improvement in rational vaccine and adjuvant. To study correlates of immune protection, we should invest heavenly in development of in vitro functional and in vivo annual models that better mimic the human disease but also in the chemical immune monitoring of vaccine trial.

## Biography

Eyinade Olusegun Adewale is a Senior Consultant and Associate Professor at Ladoke Akintola University of Technology, Nigeria. Having a passion for improving health care and wellbeing of the community, he has built model after years of research, evaluation and teaching both in the hospital and medical institution. He is currently the Medical Director of Phoniex Medical Centre in Nigeria.

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