

Prevalence of Antiretroviral Strategies for Treatment of HIV

Azizal Mohammed Faizal^{*}

Research Institute of Virology and Antiretrovirus, Berlin, Germany EDITORIAL

Since 1981 when first AIDS cases were identified in United States followed by Africa there has been growing understanding in the trajectory of HIV/AIDS across the world. The disease has caused unpredicted suffering, loss of life and disruption of family, social and economic abilities. Many therapies were introduced to treat AIDS. Those therapies have provided many insights in development of vaccine to decrease the pathogenecity and virulence of HIV. Here I will be discussing the strategies involved in the development of therapies for HIV. The treatments include Traditional vaccine designs, Novel Vaccine Designs and Antiretrovirals such as Protease inhibitors, Nucleotide Inhibitors, GP120 Inhibitors and modes of their action.

HIV (Human Immuno deficiency Virus) is a Lenti virusa member of Retro viral family which causes Acquired Immuno Deficiency Syndrome (AIDS) -which particularly affects Immune system. HIV remains the greatest public health crises in the world today [1]. HIV infection is characterized by a prolonged asymptomatic period of years to decades, which is followed by the fatal illness. Various complications characterize AIDS, including wasting, neurological impairment, and opportunistic infections and malignancies. Human immunodeficiency virus (HIV) infection has been associated with rhabdomyolysis [2]. The asymptomatic period was often considered as relatively quiescent with regard to viral replication with the frequent usage Disseminated of the misnomer 'clinical latency'[3]. histoplasmosis is associated with Acquired Immunodeficiency Syndrome (AIDS), involves different organ systems and may be fatal if untreated [4]. PAfrican histoplasmosis is related with HIV [5]. HIV offers a difficult target for vaccine development. The HIV isolates that infect humans and cause AIDS include a genetically diverse population of viruses [6]. Genetic diversity is also continuously generated in the course of an HIV infection in a single infected individual, as the inaccurate enzymatic machinery of this virus's replication results in ongoing production of mutant virions.

Replication of HIV-1 is a complex process that is accomplished by various structural and non-structural viral proteins. Integrase (IN) is a key enzymatic molecule of HIV-1 that is not only essential for the viral cDNA integration but is also a contributor to various events at early stage of HIV-1 replication, such as the reverse transcription, nuclear import and chromatin targeting of the viral cDNA [7]. Chronic human immunodeficiency virus (HIV) infection is characterized by defects in the immune system including depletion of CD4+ T-cells and impaired T-cell function. Successful Antiretroviral Therapy (ART) suppresses viral replication [8]. Research suggests that Physical Activity (PA)is inversely related to numerous metabolic disorders in people who are living with HIV [9]. Lower Respiratory Tract Infections (LRTI) continues to be a major cause of morbidity and mortality in people living with HIV.

There have been outstanding advantages in our knowledge of immunopathogenesis of HIV since the discovery. The traditional vaccine developed against AIDS has got some barriers in provoking CTLs and decreasing its pathogenecity. To overcome this, Novel Vaccines were developed which have elicited high titer antibody and generated high frequency of CTLs. It has got some limits such as sequence variation; lack of information regarding immune responses, etc., Antiretrovirals has proven to provoke good immune responses during treatment. The described drug targets represent some of the most noted examples of recent scientific breakthroughs that are opening unexplored avenue so novel anti- HIV target discovery and validation, and should feed the antiretroviral drug development pipeline in the near future.

REFERENCES

Pande PP (2009) Computational Approach towards designing potential HIV inhibitors. J Antivir Antiretrovir 1: 82-852.

Moanna A, Skarbinski J, Kalokhe AS, Rimland D, Rouphael NG (2011) Primary Human Immunodeficiency Virus Infection and Rhabdomyolysis. J AIDS Clinic Res 2: 1193.

Mentzer A, Karalliedde J, Williams H, Guzder R, Ranja babu K (2010) Backachewith Fever: A Unique Presentation of Advanced HIV Infection. J AIDS Clinic Res 1: 1044.

Roy D, Guha P, Bandyopadhyay D, Sardar P, Chatterjee SK (2011) Pancytopenia with Hemophagocytic Syndrome Associated with Histoplasmosis in Acquired Immunodeficiency Syndrome:

Correspondence to: Azizal Mohammed Faizal, Research Institute of Virology and Antiretrovirus, Berlin, Germany; E-mail: faizalmd@azizal.csu.de

Received date: November 03, 2020; Accepted date: November 23, 2020; Published date: November 30, 2020

Citation: Faizal AM (2020) Prevalence of Rotavirus Genotypes after Introduction of Monovalent Rotavirus Vaccine in Uzbekistan during 2014-2016. J Antivir Antiretrovir.12.e002

Copyright: © 2020 Faizal AM. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Description of 2 Case Studies and Literature Review. J AIDS Clinic Res 2: 1155.

Ehui E, Doukouré B, Kolia-Diafouka P, Aoussi E, Koffi E, et al. (2011) Intestinal Histoplasmosis with Histoplasma duboisii in a Patient Infected by HIV-1 in Abidjan (Ivory Coast). J AIDS Clinic Res 2: 1256.

Norman LL(2002) Strategies for an HIV vaccine, J Clin Invest 109: 15-20.

Ao Z, Jayappa KD, Labine M, Zheng Y, Matthews C, et al. (2010) Characterization of Anti-HIV Activity Mediated by HIV-1 Integrase C-terminal Domain Polypeptides Expressed in Susceptible Cells. J Antivir Antiretrovir 1: 20-288.

Tan DBA, Yong YK, Tan HY, French M, Kamarulzaman A, et al. (2010) Characteristics of Natural Killer Cells in Malaysian HIV Patients Presenting with Immune Restoration Disease After ART. J AIDS Clinic Res 1: 102.

Santos-Lozano A, Garatachea N (2011) Physical Activity Measurements Using Accelerometers and Pedometers in HIV-Infected People. J AIDS Clinic Res 2: 126.