Zajac V et al., J Antivir Antiretrovir 2015, 7:4
http://dx.doi.org/10.4172/1948-5964.C1.024

OMICS International
conferenceseries.com

5th World Congress on
Virology

December 07-09, 2015 Atlanta, USA

The role of human micro-biome in AIDS process

Zajac V[1], Ciernikova S[1], Adamcikova Z[1], Wachsmannova L[1], Ševurkova V[1] and **Krcmery V[2]**
[1]Slovak Academy of Sciences, Slovakia
[2]Saint Elizabeth University of Health and Social Sciences, Slovakia

AIDS currently represents one of the most serious health and social problems. It is therefore necessary to find new therapeutic targets dealing with the persistence of latent HIV reservoirs after antiretroviral therapy. Since intestinal epithelial cells, GALT and other mucosal tissues represent the main area for replication of the HIV virus, it can be assumed that the intestinal bacteria may play an important role in the etiology of AIDS. The idea that endogenous micro flora influences the course of HIV infection is also supported by the finding that microbes greatly affect the reactivation of HIV in latently infected cells. DNA testing of bacteria and yeasts: a) from intestinal tract of American and Slovak HIV-positive patients; b) from respiratory tract of Cambodian and Kenyan HIV-positive children has detected sequences 90% homologous with the corresponding sequences of HIV-1. In bacterial extracts of all patients' cohorts were identified HIV-like proteins using monoclonal antibodies against HIV-1 antigens p17, p24, gp41 and p55. HIV-like protein of size 95 kDa was detected by monoclonal antibodies against gp120 only in *Candida* species of Cambodian and Kenyan samples. Specific properties of patient's microbes were detected by infection of HL-60 cells and reducing the viral load in HIV-positive patients after administration of probiotics *E. coli* Nissle 1917. Based on these results the presence of HIV-like sequences in microbes of the patients may be hypothetically explained that bacteria and yeasts serve as a natural host of HIV sequences since the beginning of mankind. Thanks to countless epidemics individuals carrying the pathogenic microbes with HIV sequences, largely extinct. However, by administration of antibiotics, drugs and homo anal sex has recently been expanded again. Pathogenic microbes bearing HIV sequences moved to the majority, penetrate from the intestinal tract into the blood, invade the lymphocyte and the process of immunodeficiency may start.

Biography

Zajac V has completed his PhD in 1982 at the Cancer Research Institute of Slovak Academy of Sciences in Bratislava (Slovakia), where he worked as the Head of Department of Cancer Genetics from 1996 to 2010. He joined the Medical Faculty of the Comenius University as Associate Professor of Genetics in 2007. He has published 64 papers mostly in reputed journals and was Editor of the book, "*Bacteria, Viruses and Parasites in AIDS Process*" (In Tech, 2011).

exonvzaj@savba.s

Notes: