

National Institute of Dental and Craniofacial Research

Examples of Sponsored Basic, Translational and Clinical Research

Linking Oral Health with HIV/AIDS

Paper 3: Oral viral infection and oral mucosal immunology

[J Virol](#). 2012 Apr;86(7):3916-23. Epub 2012 Jan 25.

Latent Kaposi's sarcoma-associated herpesvirus infection of monocytes downregulates expression of adaptive immune response costimulatory receptors and proinflammatory cytokines.

[Gregory SM](#), [Wang L](#), [West JA](#), [Dittmer DP](#), [Damania B](#).

Source

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Abstract

Kaposi's sarcoma-associated herpesvirus (KSHV) infection is associated with the development of Kaposi's sarcoma, primary effusion lymphoma, and multicentric Castleman's disease. We report the establishment of a monocytic cell line latently infected with KSHV (KSHV-THP-1). We profiled viral and cytokine gene expression in the KSHV-THP-1 cells compared to that in uninfected THP-1 cells and found that several genes involved in the host immune response were downregulated during latent infection, including genes for CD80, CD86, and the cytokines tumor necrosis factor alpha (TNF- α) and interleukin-1 β (IL-1 β). Thus, KSHV minimizes its immunological signature by suppressing key immune response factors, enabling persistent infection and evasion from host detection.

PMID:

22278234

[PubMed - indexed for MEDLINE]

PMCID:

PMC3302530

[Available on 2012/10/1]