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**Alphaherpesviruses Infection in the Upper Respiratory Tract****Hossein Bannazadeh Baghi**Tabriz University of Medical Sciences, Iran  
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*Alphaherpesviruses* are recognized to have a broad host cell range with a rapid replication cycle, followed by destruction of the host cell in a wide variety of susceptible cells and swift spread among these cells. They use multiple strategies to hijack infected host immune cells, establish latent infection and evade antiviral immune responses in order to eventually permit the production and subsequent dissemination of infectious virions. Passage through the mucus layer on top of the epithelial cells and the basement membrane (BM) underneath the epithelial cells is essential for a successful invasion at the respiratory tract. In this presentation, I would like to focus on Equine herpesvirus type 1 (EHV-1) as an example of an invasive virus of the airway mucosa. The mucosa of the URT is the primary replication site for EHV-1, similar to other *alphaherpesviruses*. Infection with the virus directs the migration of the m-APCs toward the lymph nodes or blood vessels.

In our research, we showed the presence and localization of different components of mucosal basement membrane molecules in EHV-1-infected tissues. We found that EHV-1 infection has a major effect on two important basement membrane components, namely integrin alpha 6 and collagen VII. The interesting aspect of this finding was that they were inversely affected: while integrin alpha 6 was degraded by infection, the collagen VII layer increased in thickness during infection. These structural changes are attracting monocytic cells that are guided in the direction of infected epithelial cells. Afterwards, the monocytic cells become infected and move in a physiological way back to lymph and blood vessels.

**Biography**

Hossein Bannazadeh Baghi is the holder of a PhD awarded to him by the Department of Virology, Parasitology and Immunology at Ghent University, Belgium. Currently, he is working as an Assistant Professor in the Department of Microbiology at Tabriz University of Medical Sciences, Iran. He is also a research member of the Infectious and Tropical Diseases Research Center, Tabriz University of Medical Sciences, Tabriz, Iran. Dr. H.B. Baghi is the author and coauthor of several scientific papers in peer-reviewed journals.

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