

# Virology, Emerging Diseases & vaccines

and

5<sup>th</sup> International conference on

## Microbes and Beneficial Microbes

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### Viral Pathogenesis

Viral pathogenesis is a complex set of events and processes that cause infection of a host with a virus. These virus-host interactions result in outcomes ranging from asymptomatic to severe, fatal infections. The molecular mechanisms that underlay viral pathogenesis are challenging to unravel, as the broad range of outcomes of virus infections are influenced by various factors, including the viral species, the host species, viral and host genetic variation, host immune and health status, host age, and many others. Nevertheless, researchers investigating the pathogenesis of a multitude of evolutionarily diverse viruses have made tremendous progress, revealing both common and unique molecular mechanisms that contribute to the outcome of viral infections. The complement system functions as an immune surveillance system that rapidly responds to infection. Activation of the complement system by specific recognition pathways triggers a protease cascade, generating cleavage products that function to eliminate pathogens, regulate inflammatory responses, and shape adaptive immune responses. However, when dysregulated, these powerful functions can become destructive and the complement system has been implicated as a pathogenic effector in numerous diseases, including infectious diseases. This review highlights recent discoveries that have identified critical roles for the complement system in the pathogenesis of viral infection.



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I am Abdul Manan. I passed my BS in Medical Laboratory Sciences from UHS (University of Health Sciences) Lahore Pakistan 2015. Now working as supervisor in Biochemistry department in Buraimi Hospital Oman.