

## **Characterization of the entire landscape of peptides presented by MHC during influenza virus infection**

### **Content**

Influenza viruses (IV) infection is a public health concern worldwide. Currently, all available vaccines as well as antiviral drugs that target the virus itself are prone to resistance. Lesson learned from previous pandemic outbreaks is that people with a preexisting cellular immune response are either protected or developed less severe disease against the infection. This observation leads to propose new vaccine approaches by activation of cellular immune response against influenza virus. Nevertheless, it is unknown whether antiviral drug treatment will lead to alteration in the cellular immune response against influenza viruses. In this regard, the proposed study investigated whether antiviral drugs will alter the quality of the cellular immune response against the virus. A ligandome analysis was performed to characterize the entire landscape of peptides presented by MHC molecules. This analysis investigates not only the alterations of presented viral peptides, which may influence the immune response, but also the alterations in cellular proteins expression, e.g. as a consequence of treatment of antiviral compounds. This knowledge is necessary for drugs directed against intracellular targets as well as devising new approach against IV infection. However, further investigations are required.

### **Choose primary session**

Vaccines and antivirals

### **Choose secondary Session**

Virus host cell interaction

**Contribution Type :** Paper presentation