Immuni response of the pig to respiratory diseases

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In the respiratory tract, the major immunoglobulin is IgA. Repeated lung washings on living pigs demonstrated the presence of alveolar macrophages and lymphocytes.

During an experimental swine influenza infection, we observed a systemic cell-mediated immune response, followed by an independent increase of local (IgG and IgA) and systemic antibodies. Whereas serum antibodies persisted, local antibodies were only detectable during a short period.

Colostral immunity is able to reduce clinical symptoms of the disease, however inhibition of viral replication and release requires efficient local immunity.

Classical swine fever. Duration of the immunity obtained in sows by vaccination with the Thiverval strain

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Study of the kinetics of serum antibodies neutralizing the swine fever virus enabled us to determine the characteristics of the immunity obtained after one only injection of a live vaccine (Thiverval strain) to gilts.

The rapidly obtained immunity reached a high level (index < 5) and remained for at least 39 months at that level, thus providing an efficient protection to the gilts during their whole reproductive life.