

## **Immune 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.

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

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## **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 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.

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