



### Elisa Crisci



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### Swine respiratory viruses

#### Research emphasis:

Dr. Crisci's laboratory focuses on respiratory viral infections in pigs. Dr. Crisci's research wants to better understand the virus-host interface and the specific innate immune responses that drive the disease outcome. Moreover, she is interested in the involvement of complement system during viral infection. Her group use cellular, molecular and genomic technologies to investigate cell signaling pathways in porcine primary lung innate immune cells (macrophages, dendritic cells, natural killer) and to study the viral replication in target cells. She promotes the use of pig as the gold standard animal model for human research.

#### Selected publications:

Crisci E, Ellegård R, Nyström S, Rondahl E, Serrander L, Bergström T, Sjöwall C, Eriksson K, Larsson M. Complement opsonization promotes HSV-2 infection of human dendritic cells. *Journal of Virology* 2016 Apr 29;90(10):4939-50. doi: 10.1128/JVI.00224-16. Print 2016 May 15

Maisonasse P, Bouguyon E, Piton G, Ezquerro A, Urien C, Bourge M, Deloizy C, Leplat JJ, Simon G, Chevalier C, Vincent-Naulleau S, Crisci E, Montoya M, Schwartz-Cornil I, Bertho N. The respiratory DC/macrophage network at steady-state and upon influenza infection in the swine biomedical model. *Mucosal Immunology* 2016 Jul;9(4):835-49. doi: 10.1038/mi.2015.105. Epub 2015 Nov 4.

Ellegård R, Crisci E, Andersson J, Shankar EM, Hinkula J, Lifson JD, Larsson M. Impaired natural killer cell activation and chemotaxis towards dendritic cells exposed to complement opsonized HIV-1. *Journal of Immunology* 2015 Aug 15, 195(4): 1698-704.

Crisci E, Fraile L, Novellas R, Espada Y, Cabezón R, Martínez J, Bárcena J, Benitez-Ribas D, Montoya M. In vivo tracking and immunological properties of pulsed pig-derived dendritic cells. *Molecular Immunology*. 2015, Feb 63(2):343-54.

#### Application:

- Pig respiratory viruses
- Pig lung immune cells
- Virus-host interactions
- Complement system

#### Collaboration potential:

- Ex vivo lung innate immune cells model
- Swine respiratory model for human research
- Complement involvement during viral infection
- Virology support for pig production