

Host pathogen interaction in murine salmonellosis: characterization and significance of early immune response

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The essential role of Interferon- γ (IFN- γ) in natural resistance to *Salmonella* infection is well documented. IFN- γ promotes restriction of intracellular bacterial replication during the initial phase of infection, via the activation of macrophages. Deficiency, induced either by antibody depletion or by genetic knockout of either the cytokine itself or its receptor, dramatically increases susceptibility to *Salmonella* infection. In alternative, cytokine administration during the first few days after *Salmonella* infection reduces severity of disease. Here we showed that, using a mouse model of salmonellosis, IFN- γ is induced either with virulent or attenuated *Salmonella* strains or either in susceptible or resistant mice and it seems not correlated to the outcome of the infection. These preliminary findings can suggest that IFN gamma is not a protective factor *per se*, but can represent a double edged sword with protective effect dependent on the interaction between pathogen and host.

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Paolo Pasquali obtained his degree in Veterinary Medicine in 1994 at the University of Perugia, Italy. Since then he has been involved in the field of veterinary public health, with particular attention to the interface between vertebrate hosts and pathogens. In particular, as principal investigator at the Department of Veterinary Public Health and Food Safety, Istituto Superiore di Sanità, Rome, Italy, he has been involved in an extensive research activity dealing with, but not limited to, food-borne pathogens such as *Brucella* and *Salmonella*. Particular emphasis has been posed on the development and evaluation of novel strategies to control infections in animals in order to limit the risk for human health and to the evaluation of the risks connected to the presence of such pathogens for public health.

The data from Paolo Pasquali's presentation is currently unpublished, so the abstract is published on the EADGENE website instead of his PPT.