



Alicia Murcia

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Current research

I am currently working on *Salmonella enterica* serovar Typhimurium dynamics of infection and its interaction with host cells such as bone marrow derived macrophages. I am developing a system for visualizing *Salmonella* invasion *in vitro* by using an induced expression of a green fluorescence protein (GFP) in bacteria. In this experiment, GFP expression in the *Salmonella* strain JH3009 is activated after bacteria internalization into macrophages. During the first part of my project, preliminary data will be analysed by fluorescence and confocal microscopy. This will allow me to develop a standard protocol, which could be applied during the second part of my project into time-lapse microscopy experiments. In addition, I will use experimental data to generate a mathematical model of *Salmonella* spread in macrophages.

Other research interest

My research interest is in general connected to bacteria-host cell interactions at the level of individual cells. This can be achieved by the study of dynamics of bacterial infections *in vitro* aided by a broad range of microscopy techniques and modelling of the experimental data.

Background

2005: Master by Research degree by the Queen's Mary University of London, UK.
2002: Graduated as a Veterinary Surgeon by the University of Murcia, Spain.