Name:	Georgina Crayford		
Project title:	The infection biology of pig-associated *Salmonella*		
Institute:	Liverpool University		
Start date:	October 2010	**Finish date:**	March 2014

Lay summary of project (*in your own words*)

Pigs and pork are sources from which humans can catch the food-poisoning bacteria Salmonella. The aim of my project is to understand how certain strains of Salmonella are successful in infecting pigs. With an improved understanding of what makes these strains infective, further work can focus on how to prevent or limit them.

In the laboratory I work with cells taken from the intestine of the pig, the primary cells that come into contact with Salmonella during infection. I infect these cells with different strains of Salmonella and analyse how the bacteria behave when they come into contact with the cells and how the cells respond to the Salmonella. For example, I can determine which genes and proteins are important to the bacteria and intestinal cells during interaction between the two. This experimental work is designed to give us a better idea of what happens in real life when pigs become infected with Salmonella.

The results that I get from this project will hopefully inform future projects looking at control measures for Salmonella in pigs. If we can prevent pigs from being infected by Salmonella it will help to make pork safer to eat and improve public health.

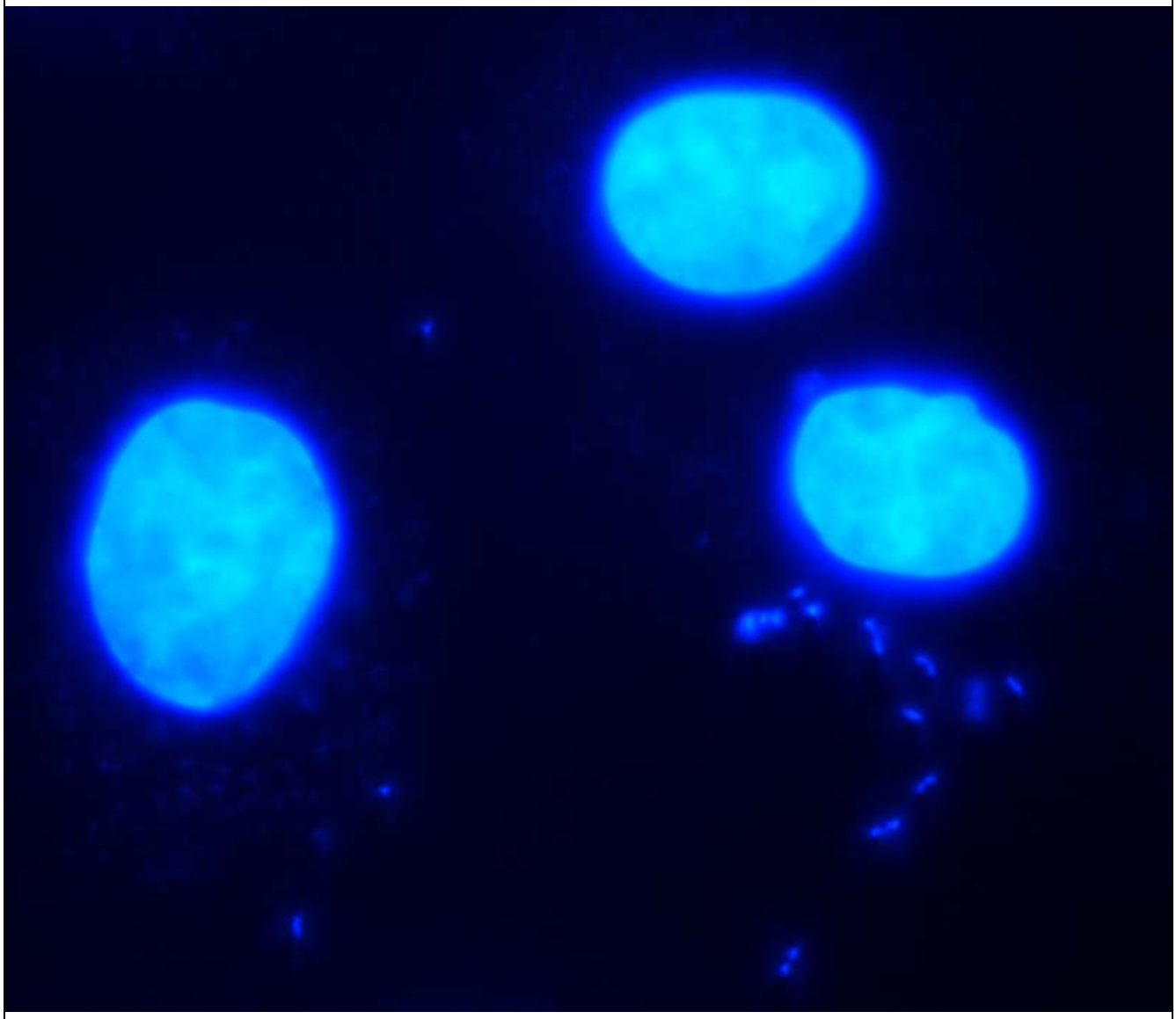
A bit about yourself (*one paragraph*)

I am an enthusiastic young scientist interested in zoonotic diseases that can be transmitted between humans and animals. I am particularly interested in pig diseases and would like to continue working in the pig industry to improve pig health once I have completed my PhD. In my spare time I enjoy playing lacrosse, cooking for my family and friends and going to music festivals and gigs.

What you hope to get out of your PhD

Through doing my PhD I hope to contribute valuable information to the scientific and agricultural communities, which will give me an enormous sense of achievement. I also hope that by the end I will have become a better researcher, more able to work through difficult problems effectively.

A photograph of your work



Salmonella attaching to and invading porcine intestinal epithelial cells. DAPI blue fluorescent staining of DNA: large round structures are cell nuclei, small structures are bacterial cells.

Declaration: I hereby give permission for my photo and the information provided to be used by BPEX in any publication, printed or electronic, for the purpose of informing stakeholders about my work.

Signature: …Georgina Crayford Date: …21/08/2013