Undetected and Unrecognised Diseases in Dairy Cattle:

Early detection and improved management

Assessing behaviour and welfare associated with sub-clinical infection in dairy cows

Dr Suzanne Held, Suzanne.Held@bris.ac.uk
Dr Gina Caplen, Gina.Caplen@bris.ac.uk

We are interested in identifying differences in cow behaviour, especially social behaviour and anhedonia (inability to experience pleasure), associated with sub-clinical inflammation as we have already identified similar differences in pigs. We have chosen sub-clinical mastitis as our model for inflammation, as focal cows can be selected on the basis of somatic cell counts within milk (numbers increase substantially during mastitic episodes), and we are currently selecting pairs of cows (sub-clinically mastitic and control) to collect data on this basis.

Study:
- 6 cameras fitted within the shed that focus upon the low-yielding (very pregnant) group
- 2 cameras at the milking parlour exit.
- Cows are fitted with coloured collars for direct observations and via video footage (PC on viewing platform)
- We are collecting saliva samples as a novel measure for inflammatory markers
- In collaboration with Helena Telkanranta, we are using thermography on the same cows to assess impacts upon affective state as a welfare indicator

Currently the herd has low levels of mastitis with the lowest cells counts ever recorded within the herd.