

5th International Congress on

INFECTIOUS DISEASES

March 01-02, 2018 Berlin, Germany

Bovine spongiform encephalopathy (mad cow disease) is probably caused by *Acinetobacter* bacteria and not by prions

Alan Ebringer

King's College London, UK

Previous studies have shown that there is molecular mimicry between *Streptococcus* and cardiac collagens in rheumatic fever. In early 1990's the British government asked whether there was a role for molecular mimicry in bovine spongiform encephalopathy (BSE), also known as mad cow disease. A cursory review of the literature showed that molecular mimicry was present between the soil and nasal microbe *Acinetobacter* and myelin, the covering of nerves. The government, through DEFRA (Department of Environment, Food and Rural Affairs) then gave a £250,000 grant to King's College and access to BSE materials to investigate this problem. A pilot study showed that elevated levels of antibodies to the soil and nasal microbe *Acinetobacter* was found in 29 BSE animals compared to sera from 76 control animals ($p < 0.001$). A second larger study involving 128 BSE compared to 127 controls, confirmed that elevated levels of antibodies to *Acinetobacter* were present in BSE animals ($p < 0.001$) but not to 6 other bacteria. It appeared that feeding cattle with abattoir materials (meat-and bone meal) caused either contamination with *Acinetobacter* or with prions and the government banned the use of meat-and-bone meal supplements which led to the disappearance of BSE in British cattle. However a review of the definition of transmissible spongiform encephalopathies (TSE) revealed that the Pasteur Effect, namely the production of experimental allergic encephalomyelitis (EAE) in experimental animals had not been considered when injecting saline brain homogenates in BSE research studies. The bio-assay is based on a wrong assumption that injecting saline brain homogenates will not cause damage to the healthy, test experimental animals. The concept that prions are infectious particles may require revision.

Biography

Alan Ebringer is Professor of Immunology at King's College London and has published over 300 papers in scientific literature. His main interests are immunology of ankylosing spondylitis, rheumatoid arthritis and bovine spongiform encephalopathy (BSE "mad cow disease"). His group has suggested that BSE is caused by *Acinetobacter* bacteria.

drdeanna.rpm@hotmail.com