The purpose of my statement is to describe, from the time when BSE was first identified, my actions and statements about BSE and nvCJD and the reasons for those actions and statements. I have a number of criticisms about what was done about BSE and CJD. In this statement I shall describe the criticisms which I made at the time. I have other criticisms, which I have submitted to the Inquiry and I understand that they will be investigated. In this statement I describe only what I said and did as a matter of historical fact.

2. In order to understand the context it is necessary for me briefly to describe my role in food contaminations, other than BSE.

3. I qualified as a Doctor of Medicine from the University of Cambridge in 1964 and a Doctor of Philosophy from Bristol University in 1971. I then specialized in both child health and microbiology in London, Bristol and East Anglia. I have been Professor of Clinical Microbiology at the University of Leeds since 1983 and a consultant to the World Health Organisation since 1984. I attach as Annex 1 my CV together with two lists of my publications. It is my career function to prevent infectious disease and I have had a particular interest in preventing diseases in people that are derived from animals and food. In that capacity I advised the Ministry of Agriculture on the Veterinary Products Committee on matters concerning the use of drugs in animals, birds and fish between 1986 and the end of 1989.

4. One of my career roles has been responsibility for diagnostic microbiology laboratories that receive samples from ill patients. The rising incidence of salmonella and other food poisoning, listeriosis, prompted me and my Department in Leeds in the mid 1980s to research
the reasons why this was occurring, with a view to trying to reverse the
trends. It was evident from the outset that there would be a conflict
between the interests of the food producers and that of the consumers,
particularly as both these were the responsibility of the same Ministry. I
have adopted the attitude that fear of such a conflict should not be a
deterrent to researching, analyzing and raising the issues. The outcome of
this research has in some areas been gratifying with hazards from
listeriosis, cook-chill and microwave use, now considerably reduced
compared with 10 years. Unfortunately food poisoning from salmonella
has remained high. The concerns, which I expressed from 1988 about
salmonella in eggs inevitably, led to criticism from the egg farmers and
their Parliamentary supporters. Similarly when I made known my
concerns in 1989 about processed foods, including cooked chicken, soft
cheeses and cooked chill food, this led to similar people disparaging me.
I also pointed out at this time that \textit{E.-coli} 0157 was a potential problem
with cooked meat. Therefore I was aware that with this background,
raising the profile of BSE would generate anger from those with a vested
interest. Despite that, my training and professional responsibility required
me to give priority to the welfare of the public.

5. I did not take any significant interest in the emerging reports on BSE
until I was researching for my Penguin book \textit{Safe Shopping, Safe
Cooking, Safe Eating} in early 1989. As part of my research for my book I
read the official statements from the Ministry of Agriculture, and what I
said in my book about BSE was the official wisdom of the Government
of the day. I refer in particular to pages 162 to 164 of my book (Annex
2). The process of publishing the book in June 1989 however made me
re-evaluate what I had written. I read the source material on which the
official line was based and I now describe my thinking as it developed
during the latter part of 1989. It was at this time that my family
abandoned British beef as part of our diet.

6. The first document which I consulted was the \textit{Veterinary Record} article
published in October 1987 (Wells \textit{et al}). The crucial information was that
this was a new disease likely to be infectious in the major source of the
country’s food.

7. I next turned to the report of the Southwood Committee (February 1989).
I came to the view that the report was essentially flawed in that the bulk
of the report described BSE as a transmissible spongiform
encephalopathy, that is a disease due to an infectious agent with the inevitability of the potential to spread to further members of the same species, or indeed to other mammalian species. Yet the report’s conclusions considered that cattle were a “dead-end host” for the infection, that is it was non-infectious.

8. I also consulted the article by Drs Holt and Phillips in the *British Medical Journal* (1988). My reaction at the time was to share their concern about a new infection of the sort to which people were known to be vulnerable.

9. In August 1989 I expressed the view that the chance of BSE going to any member of the human population at all was around 5%, in an interview with James Erlichman, the Consumer Affairs writer of The Guardian, who was writing a general article in Country Living about food contamination.

10. The report of another Government Committee, the Tyrell Committee, was published in January 1990. The Committee recommended that the numbers of people succumbing to CJD be monitored over the next 20 years. At the time I thought that monitoring of a disease incidence was much less important than taking action to avoid the risk. Even at this time there was no cessation of infected herds breeding, there was no quarantine and there was no adequate documentation of most herds.

11. I became dramatically involved with the BSE issue when I took a chance telephone call from a London radio station on 10 May 1990. I was asked if I would give a telephone interview with a Mr Andrew Neil who was rehearsing as a part-time radio presenter. I agreed, little realizing that the Andrew Neil in question was Andrew Neil, the then editor of The Sunday Times. We talked about food matters in general, including BSE. I explained that the numbers of cattle confirmed as having BSE were still rising, implying that BSE must be spreading between cattle and that all the infected herds should be destroyed. On the next day, a journalist from The Sunday Times telephoned and I repeated these comments. On Sunday 13 May the paper carried the front-page headline “Leading food scientist calls for slaughter of 6m cows”. The next day, 14 May, the telephone at work never stopped ringing.

12. The consequence is that during the course of the next few days, the Government issued several News Releases and in addition the Minister
for Agriculture, Mr John Gummer, made a statement to the House of Commons on 17 May.

13. The Agriculture Committee then decided to hold an inquiry into BSE. Mr Jerry Wiggin MP, the Chairman of the Committee, requested that I prepare a report on BSE and related issues for its Inquiry. I did this in collaboration with Dr Dealler who was then working in my Department in Leeds. Our memorandum is appended to the Committee’s report. We entitled it “The risk to man”. As I later explained to the Committee, we had only four actual clear days to produce a 30 page document.

14. I was asked to give evidence to the Committee on 13 June, along with Professor Mills, Dr Helen Grant and Dr Gareth Roberts. I did not know until the morning of the hearing, who my colleagues at the hearing were. The transcript of the proceedings is in the Committee’s report. Although I was not happy with the tone of the questions put to me by the Committee, nor with the fact that they spent time pointing out that in our rushed memorandum I had missed out one word, nevertheless I was satisfied that I had put across the points which I wished to make and that there was a sound foundation to them. In particular my comment “if our worst fears are realized, we could virtually lose a generation of people” (at page 55 of the Committee’s report) was based on the well documented instances of almost 100% of all mink succumbing from spongiform encephalopathy following eating contaminated feed. My fear was that it could happen to us if British beef carried the BSE agent and human beings were vulnerable to it. It was also evident at this time that most people had consumed contaminated beef and it was not then known that only a proportion of the population was susceptible to TSEs.

15. On 10 July 1990, the Agriculture Committee deliberated and the chairman, Mr Wiggin, read out the draft report. The report included a passage about my evidence, which suggested that I had seemed to lose touch completely with the real world when I said that we could lose a whole generation of people. I have indicated above the reasons for my comment.

16. Dr Dealler and I have collaborated on a series of articles on BSE and in addition I have been the sole author of some. The first of these articles was entitled “Transmissible spongiform encephalopathies: The threat of BSE to man” which appeared in Food Microbiology in December 1990.
We concluded that there was a distinct possibility that man could acquire spongiform encephalopathy from consumption of contaminated beef.

17. I repeated my concerns over contaminated beef in a book published in 1991 called “Unfit for Human Consumption”. At Annex 3 are pages 90 to 116 of this book. Table 10 is important as I summarized the particular features of BSE as I saw it in 1991.

“Features of BSE

- Scale of epidemic unique to British Isles. Cows affected with clinical disease more often than cattle.
- Most prevalent in S.W. and S. England.
- Not known whether vertical transmission occurs to calves.
- Not known whether humans are vulnerable.
- The distribution of infectious agent is not known.
- Rendering plants/protein supplements responsible.
- Source of infectious agent possibly cattle.
- Beef could be infectious agent for humans.
- Uncertainties over infectivity to humans may persist for many years.
- Cats have probably acquired the disease from cattle products.
- More positive action required; it may be forced by economic pressures.”

19. I wrote a letter to the Veterinary Record which was published on 15 February 1992. This is at page 136 of my Mad Cow Disease book (published in 1994). The letter concerned the incidence of BSE. I relied on information given by the Ministry of Agriculture and which was published in Hansard. My conclusion was that BSE was now an established endemic, even though it was initiated or aggravated by feeding offal to cattle. I wrote my letter because of the revelation that the ages of the confirmed cases had dropped. The editor of the Veterinary Record provided a copy of my letter to the Ministry before publication to allow an instant response, also on 15 February. The response is at pages 137 to 138 of Mad Cow Disease. Mr Taylor, the Assistant Chief Veterinary Officer, pointed out correctly that the figures for 1989 were for England and Wales, and those for 1991 included Scotland. But in my view that was not the issue. It was the proportion of three year olds of the total that mattered. I did not of course include the 1,623 instances where the age was unknown. It was not my responsibility that the reporting and
recording of ages was so sloppy that it yielded so many with “ages unknown”. In my opinion it was scientifically correct to exclude data that has no meaning. It would not have been appropriate to add on the 1,623 cases to the total because it was not known how many were three year olds. But even if I had included these cases, the total became 19,620 and the percentage of three year olds becomes 15.3, still well up on 1989, rather than down. I considered that it was very significant that Mr Taylor did not dispute the accuracy of the yearly figures as presented, even though “incomplete”. The remainder of Mr Taylor’s letter defended the feed hypothesis and the line that due to accident or carelessness many cattle had probably received meat and bone meal when they should not have done. I was most “impressed” as to how this information was obtained some years after the events.

20. On 13 February 1992 James Erlichman, the journalist, published an important article in *The Guardian*. The gist of the article was that the farmers might have used old feed for perhaps 8 weeks after the feed ban. In my view that was probably a red herring. The key observation was that one dam had given birth to 4 calves all of which subsequently went down with the disease, but the dam remained healthy, despite sharing the same feed. In my view, the most likely explanation is that the dam had been sub-clinically infected, with vertical transfer to each of the four calves, which later died of BSE.

21. David Hinchcliffe, the MP for Wakefield, asked a Parliamentary Question on 12 June 1992, on my behalf requesting details of the animal experiments carried out for the Government. I was surprised that Mr Soames, one of the junior Ministers of Agriculture, did not give any details and did not publish that information in *Hansard*, where it would have been available to all. Rather the information was placed in the Library of the House. Mr Hinchcliffe provided me with the Table which I now produce as Annex 4 as it appears in page 144 in my *Mad Cow Disease*. In my view the data was self-explanatory. Of most significance for the potential threat to man were the findings in the pigs and marmoset monkeys whose tissue proteins are similar to man. Also of relevance to potential human infection is the incubation period of the disease in the short-lived primate, the marmoset, with a high dose of brain directly inoculated which was 4 years. This suggests that the incubation period in man, assuming vulnerability, would be seven fold longer eg 12 to 50 years.
22. In early 1993 I asked Dr Tyrell for a meeting because I was dismayed about the lack of action taken to control BSE. On 22 June 1993 I attended a meeting with Dr Tyrell, Messrs. Bradley and Wilesmith of the Central Veterinary Laboratory and Dr Dealler (whom I asked to come with me). The meeting took place at the National Agriculture Centre, Stoneleigh. At Annex 5 is a record of this meeting which Mr Bradley prepared and which both Dr Dealler and I have agreed may be supplied to the BSE Inquiry and put into the public domain. I should point out however that despite initiating this meeting I had not been informed of the existence of the minutes nor had I seen a copy until 26 February 1998. As I told Michael Elliot, the presenter of the documentary “Mad Cows and Englishmen”, there was no scientific dialogue. The Government scientists, Wilesmith, Bradley and Tyrell, were not prepared to consider the points that Dr Dealler and I made. I obtained the impression that the Government scientists were unable to consider our points as they were playing a predetermined role. I would particularly like to draw the Inquiry’s attention to the danger of cattle bones (summary point 7 in the minutes of the meeting).

23. I published a contribution to the debate in the *British Food Journal* in July 1993 entitled “BSE: The gathering crisis”. For some time, I had been puzzling why BSE cows typically succumbed at around age 6-7 years as a result of a drop in milk production. If cows were exposed to the infection in their food throughout life, would the disease not be expected to occur most frequently following the greatest exposure; that is at age 5-6 years, not 4?

24. In September 1993 farmers began to contact me because they owned youngish cattle which they confidently believed were suffering from BSE. Farmers from all over the country told the same story. They had not kept possibly contaminated feed for months or years after the feed ban. On many occasions, the young BSE animal was born after July 1988 from a dam that had subsequently also succumbed from BSE, with the clear implication of vertical transfer. The Ministry vets thought otherwise. At this time I also gave several presentations to local authorities about the dangers from beef because the Meat and Livestock Commission had mounted a vigorous defence of British beef for school children.
In the autumn of 1993 I became concerned that the Government was massaging the figures for BSE cases by back-dating deaths to earlier years. *The Lancet* on 25 September 1993 said that 51,875 cattle died from BSE between 1988 and 1991 but on 26 November 1992 a House of Commons answer to a question from Mr Hinchcliffe said that 48,526 died in that period. I alerted James Erlichman to the discrepancy who published a story about it in *The Guardian* on 2 October 1993. He quoted me correctly as saying that presumably some recent cases of BSE had been added to the previous years to falsify the epidemic. I said that we needed an independent inquiry into the true state of the epidemic. According to Mr Erlichman, the Ministry accepted that there was a significant discrepancy, but the figures reported in *The Lancet* related to the date at which farmers first reported symptoms, while the deaths in the Commons answer were logged by the dates when veterinary surgeons ordered animals to be slaughtered.

The Ministry also suggested that the figures supplied to *The Lancet* included cases on the Channel Islands and the Isle of Man. I asked Mr Hinchcliffe to ask a question (*Hansard*, 1 November 1993) about the BSE cases for the Isle of Man and the Channel Islands. I set out the history of this in *Mad Cow Disease* at pages 151 to 153. The explanation of the Ministry did not add up.

Also in November 1993 Mr Hinchcliffe asked a further Parliamentary Question on my behalf. He asked the Minister for Agriculture how procedures for isolating, monitoring and reporting BSE livestock suspects born after 18 July 1988 differ from those born prior to that date. Mr Soames’s answer, which I reproduced at pages 139 to 140 of *Mad Cow Disease* made me very concerned. In my view the effect of the change in procedure in February 1992 was to distort the number of BSE cases, with the inevitable reduction in the numbers of young animals slaughtered and confirmed.

In November 1993 Dr Stephen Dealler published a substantial appraisal of the total number of BSE cattle (including the numbers slaughtered before the onset of the terminal brain disease), the presence of tissue infectivity and the risk to the human population. He published this in the *British Food Journal* and was entitled “Bovine Spongiform Encephalopathy (BSE). The potential effect of the epidemic on the human population”. Among Dealler’s estimates were that 7% of British
cattle born in 1988 were infected with BSE, some 230,000 animals. Very many animal organs would have been infected, including many not within the group of banned specified offals. In particular, liver, kidney and heart, which are commonly used in sausages and other, processed foods. I was proud to be responsible for editing Dr Dealler’s article for the Journal.

29. The *Veterinary Record* published a letter from Dr Dealler and myself on 5 February 1994 (which I reproduced at pages 166 to 168 of *Mad Cow Disease*) in which we cited an index case of a female Friesian-Holstein calf born on 4 July 1989, nearly a year after the ruminant feed ban. The events were precisely predictable from the changes in procedures to which I refer in paragraph 27 above. MAFF veterinary surgeons had told the farmer that the animal was suffering from “ketosis” which is a non-specific chemical finding (too much acidity in the blood) in many illnesses. It usually tells you nothing other than that the animal is ill. The farmer then contacted me, as he did not accept this diagnosis. Subsequently the animal was slaughtered and the head was removed. The brain was processed at Grange Laboratories, Wetherby and examined at the Cambridge Veterinary School and at the Central Veterinary Laboratory. The diagnosis was “typical BSE with severe spongiform change”. We wrote that the case history was strongly suggestive of vertical transmission of BSE. I add that the visiting veterinary surgeons would have been quite happy for the carcass to enter the food chain (with the exception of specified offals) and that this would have occurred had not the farmer contacted me.

30. Our letter in the *Veterinary Record* led to a published reply in the journal from Mr K C Taylor, the Assistant Chief Veterinary Officer in the Ministry, and to correspondence in February and March 1994 between Mr Bradley, the BSE Co-ordinator for the Ministry and myself. I set out this correspondence at pages 169 to 173 of *Mad Cow Disease*.

31. I had been concerned for some time about the thinking of MAFF that sheep scrapie was the cause of BSE. I asked myself why the Ministry had not tested their hypothesis experimentally in the UK. So I asked Mr Hinchcliffe to ask a Parliamentary Question in May 1994. Mr Soames answered on 17 May that no experiments involving the inoculation or feeding of cattle with infective material from sheep with scrapie had been undertaken in Great Britain. Yet I learned from an announcement
by the Ministry on 30 June 1994 that experiments, as late as January 1992, had in fact taken place, and that they had showed that the experimental feeding of calves with infected BSE material had resulted in the infectivity in the guts of those calves.

32. I continued to collaborate with Dr Dealler. During the course of 1994 I published with Dr Dealler an article entitled “Bovine spongiform encephalopathy : the increasing threat to the human population” in Rapid Methods and Automation in Microbiology and Immunology edited by Spencer and Newson. We also published an article in Human Reproduction entitled “Vertical transfer of prion disease”. We pointed out that prion diseases were vertically transferable in many mammals including man. We reanalysed the kuru data which showed that the disease was prevalent mainly in adult women and in adolescents of both sexes and we proposed that this was due to vertical transfer and that this would explain why kuru had not become extinct following the cessation of cannibalism, and raises the probability of vertical transfer of nv CJD in the human population.

33. In November 1994 my book Mad Cow Disease: The history of BSE in Britain was published. Following immediate hostile comments by Ministry veterinarians in The Times, no book shop stocked it.

34. In 1995 I published an article in the Journal of Nutritional and Environmental Medicine entitled “Bovine Spongiform Encephalopathy – The Disputed Claims”. I considered six commonly presented claims regarding BSE. These were (1) BSE was caused by sheep material infected with scrapie being fed to cattle. (2) The total number of BSE cases would be 17000 – 20000 in total. (3) The disease is in a dead-end host. (4) It is not possible for BSE to enter the human food chain. (4) The risk of BSE for humans is remote. (5) The number of BSE cases is now dropping. I analysed each claim and found each to be untenable.

35. Later in the year I gave evidence to the European Parliament’s Committee of Inquiry into BSE, on 8 October 1996. In my opening remarks I referred to several of my previous publications, including “Transmissible spongiform encephalopathies : The threat of BSE to man” (see paragraph 16 above), my book “Mad Cow Disease” and “Bovine Spongiform Encephalopathy – The Disputed Claims” (see paragraph 34 above).
36. On 12 November 1996 I gave the George Orwell Memorial Lecture at Birkbeck College, London, which was published later in *The Political Quarterly* under the title “The Ministry of Agriculture – the Ministry of Truth”. I endeavoured to illustrate how short-term political interests had taken precedence over national and international risks to human and animal health, by reference to the history of the handling of the BSE crisis.

37. I have written an article to be published in *Reviews in Medical Microbiology* entitled “Bovine Spongiform Encephalopathy: The Fallout” in which I conclude that measures taken by the UK authorities up to late 1997 are unlikely to prevent BSE from becoming enzootic in a way analogous to sheep scrapie. In my view the number of cases of nv CJD will rise in the next century as a result of direct exposure to bovine material, and it seems likely that intraspecies transfer of nv CJD is expected to occur through, for example, blood materials and surgery, and also by vertical spread.

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