



## **Challenge to chief scientist's TB report 28 November 2007**

The Government's chief scientific adviser, Sir David King, is facing a major challenge to his authority, following the publication of two devastating analyses[1,2] of his report on bovine TB and badgers[3].

One analysis has been undertaken by the Independent Scientific Group (ISG), whose conclusions on bovine TB control Sir David had challenged. The other has been undertaken by Professor Denis Mollison, the independent statistical auditor of the ISG's work and Emeritus Professor of Applied Probability at Heriot-Watt University.

Both documents have been submitted to the Environment, Food and Rural Affairs Select Committee, which is conducting an investigation into the problem of bovine TB.

The ISG's analysis shows that Sir David King made fundamental scientific errors in his use and interpretation of the information in the ISG's final report on bovine TB[4]. The ISG reveals that Sir David:

- incorrectly interpreted the significance of statistical confidence intervals;
- excluded important data without justification;
- failed to consider ecological data which supported the ISG's conclusions; and
- misunderstood mathematical modelling of TB and consequently under-estimated the benefits of cattle-based TB control measures;
- called for badger culling in areas that are too small to be beneficial, without providing scientific evidence to support his advice.

Meanwhile, in a paper which humiliates the Chief Scientific Adviser, Professor Mollison says that Sir David King's report is 'inexpert and unbalanced' because his group lacked the necessary expertise in 'complex statistical modelling and data analysis'. Professor Mollison illustrates with 'a little bit of mathematics' how the Chief Scientist's conclusions are 'one-sided', 'muddled', 'wrong', 'untrue' and inadequate 'as a basis for government action'.

Professor Mollison points out that had Sir David King had the courtesy to discuss his concerns about the ISG's work with the scientists themselves, he might have generated 'more light and less heat'.

Trevor Lawson, public affairs advisor to the Badger Trust, commented:

"Yesterday, Sir David King preached about the merits of genetically-modified crops[5], arguing that there is a moral case for their use.

But the Badger Trust believes that Sir David's handling of the complex bovine TB issue has called his credibility into question.

Nature, the leading science journal, suggested that whatever his motives, Sir David's TB report appeared to have been 'written to please the farmers'[6]. People will inevitably ask: 'Who is Sir David trying to please by advocating GM crops?'

"The ISG and Professor Mollison have shown that Sir David's views on bovine TB control are open to strong challenge by scientists. By default, Sir David's views on bovine TB should not be taken seriously by politicians who have promised to base their policies on sound science."

ENDS

For further comment, contact Trevor Lawson on 07976 262388

1. Bourne, F. J., C. A. Donnelly, et al. (2007). "Response to "Tuberculosis in Cattle and Badgers: A report by the Chief Scientific Adviser"." Memoranda to the Environment Food and Rural Affairs Committee House of Commons.

2. Mollison, D. (2007). "TB in Cattle and Badgers: Comments on the Chief Scientific Adviser's Report and on the ISG's response."

Memorandum of evidence submitted to the Environment, Food and Rural Affairs Committee House of Commons.

3. King, D. (2007). "Bovine tuberculosis in cattle and badgers." A report by the chief scientific adviser.

4. Bourne, F. J., C. A. Donnelly, et al. (2007). "Bovine TB: The Scientific Evidence." Independent Scientific Group Reports Final Report.

5. Sir David was speaking to the Foundation for Science and Technology. Sir David King has been criticised for his stance on GM crops before. In November 2002, he launched an online Government review of GM crops, but he chose to leave out the results of GM crop trials. A few days after launching the review, he was knighted (for more information, see

[http://news.bbc.co.uk/1/hi/uk\\_politics/2516213.stm](http://news.bbc.co.uk/1/hi/uk_politics/2516213.stm)).

6. Editorial (2007). "In for the cull." Nature 450(7166): 1-2.