

## **2001 Research Assessment Exercise**

### **Overview for Unit of Assessment 17: Veterinary Science**

The Sub-Panel for Veterinary Science assessed submissions from the six veterinary schools with each submission ranging in size from 142 to 374 outputs emanating from 33 to 98 FTE active researchers respectively. Within most of the submissions the researchers were arranged within groups of an acceptable critical mass although there were instances where the numbers involved were lower than optimal.

Overall the standard of research outputs had improved since the 1996 RAE and all the submissions received a higher grade than 5 years previously. The organisation of research has improved immensely from the 1992 RAE through 1996 to the present exercise and all the veterinary schools had attainable research strategies in place.

Research funding obtained was impressive with the majority originating from the Funding Councils and major Research Charities and a smaller proportion from industry.

The numbers of research students were less impressive possibly reflecting the increasing undergraduate teaching loads compared with the past and the increasing competition for the number of residency training programmes in the clinical and paraclinical departments. The withdrawal of dedicated veterinary research fellowships by BBSRC and Wellcome has also had an adverse effect on research student numbers.

All of the veterinary schools had invested in the new technologies of genomics, proteomics and bioinformatics while epidemiology, identified as a need by the Phillips Enquiry, featured in all submissions. There was multiple evidence of international rated research (confirmed by a panel of international advisers) in neuroscience, infection and immunity and pathobiology while pockets of international excellence were identified in reproduction, pharmacology and animal behaviour. Virtually all of these areas would be classified as basic science and a similar quality of output was not judged to be present in the clinical part of the submissions, most of which were rated at a national standard. We recognise the difficulty of maintaining high quality research programmes in the clinical disciplines and there were pockets of research where multidisciplinary groups were yielding high quality data. Encouragingly, very few of the outputs were rated as sub-national. Much of the high quality work in the basic science area was undertaken by non-veterinary qualified researchers and there is a pressing need to encourage more veterinary graduates into these areas. This would facilitate the flow of basic results and ideas into the clinical arena and to other stakeholders such as the pharmaceutical industry.

We were pleased to note the multidisciplinary approach of much of the research. However, we noted that this involved mostly other departments in the same university and we would have liked to see more collaboration with Government or BBSRC research institutions such as the Institute of Animal Health, the Veterinary Laboratories Agency or the Moredun Research Institute, where they have large animal facilities which are infinitely better at present but which need to be developed at the veterinary schools. We would encourage the rapid implementation of the recommendations of the 1998 Selborne Report on the future of veterinary research to maximise the available resources.

On the above theme, it is worth noting that while the Infection and Immunity research in the schools was of an international standard, this research was largely undertaken on the infectious agents themselves or using laboratory animal models. Given the huge animal losses of 17% of the farm livestock turnover through existing infectious disease in the UK, amounting to £3.6 billion pounds per annum (which does not take into account the losses due to exotic disease such as Foot and Mouth), there is a crying need to apply the fruits of this basic research to the target species and so exploit the huge developments in genomics,

proteomics, bioinformatics and molecular epidemiology. To do this we need to invest in infectious disease research, partly by more collaboration between universities and institutions, but also by providing the necessary staff and large animal facilities in the veterinary schools if we are to maintain our international standing in this area, restore public confidence in animal science and improve food safety.

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