

to be drawn up quickly. A complete breakdown of each trust's activities and finances is also given, listing funding policy (including areas of priority), eligibility criteria, types of grants given, size of grants, funds available to the trust, examples of grants recently awarded, methods of application and contact details. Entries for those of the top 300 grant giving trusts which fund activities relevant to animal conservation/welfare, such as the Garfield Weston Foundation, the Rufford Foundation, and the World Wide Fund for Nature, are listed in more detail. In addition to trusts which support research and project work, trusts that provide funds for capital projects, core costs, salaries and other types of activity are also detailed. This directory should prove itself invaluable to all those seeking financial support for their welfare and conservation activities. All you need do now is apply!

The Directory of Grant Making Trusts Focus Series: Rural Conservation and Animal Welfare. Edited by Johanna Davis, David Moncrieff and Joanna Wootton (1999). Charities Aid Foundation (CAF): Kent. 196pp. Paperback. Obtainable from, Biblios, Star Rd, Partridge Green, West Sussex RH13 8LD, UK; or via the Internet at: <http://ngobooks.org> (ISBN 185934108X), Price £24.95.

The use of immuno-adjuvants in animals in Australia and New Zealand

Immuno-adjuvants are substances that are able to enhance an animal's immune response to an antigen, and are often introduced simultaneously with the antigen. They can be used to optimize yield in antibody production. Their use prompts concern about welfare issues because the efficacy of an adjuvant commonly depends upon its capacity to produce inflammation and irritation.

Produced for use by the Australian and New Zealand scientific community, this publication is aimed at practitioners and animal ethical committees seeking advice on adjuvants. Background to the use of adjuvants is given, along with an overview of the action of a range of immuno-adjuvants (with especial reference to the most effective – Freund's), and the existing literature on adverse side-effects (eg common side-effects of the use of Freund's are increased granuloma production and arthritis). Most usefully, the publication provides guidelines on routes of administration, maximum dosage, and frequency of use of adjuvants.

The report concludes that the use of these adjuvants, including Freund's Complete and Incomplete Adjuvant (FCA, FIA respectively), is acceptable. It suggests that many of the most serious problems associated with the use of FCA can be overcome through use of multiple injection sites and small doses. Sterility, of the solution to be injected and to a lesser extent at the site of injection, is also highlighted as a possible important factor influencing the development of adverse side-effects. Further recommendations concerning administration are given.

The Use of Immuno-adjuvants in Animals in Australia and New Zealand. Australian and New Zealand Council for the Care of Animals in Research Teaching (1998). ANZCCART: Glen Osmond. 35pp. Paperback. Obtainable from the publishers, PO Box 19, Glen Osmond, South Australia, SA 5064, Australia (ISBN 0646249231). Price A\$10.00 (plus A\$5.75 for postage to North America or A\$6.50 postage for Europe).

Statistics of scientific procedures 1998

The statistics for scientific procedures on living animals in Great Britain for 1998 have recently been published. They indicate that the number of animals used in scientific procedures has marginally increased, to a total of 2 659 662, although this should be seen against a long-term trend of consistent overall reductions since 1976. The use of genetically modified animals continues to increase, with 95 000 more transgenic mice used than in 1997, an increase of nearly

27 per cent. Transgenic rat use has doubled since 1997, which the report attributes to refinements in the technology used to produce such animals. On the other hand, the use of ascitic animals in monoclonal antibody production fell as a result of the Home Office's initiative to phase out their use, and the number of acute lethal quantitative toxicity tests decreased by 15 000. Primate use also fell, but it is harder to see whether this reflects a trend or is simply random variation. The majority of procedures are carried out by commercial companies, with toxicity testing accounted for 21 per cent of the total.

Statistics of Scientific Procedures on Living Animals, Great Britain 1998 (1999). The Stationery Office: London. 108pp. Paperback. Obtainable from the Publications Centre, PO Box 276, London SW8 5DT, UK and other usual HMSO sources. Price £15.00.

Newly adopted Recommendations for the keeping of domestic ducks, geese and fur animals

The Standing Committee of the European Convention on the Protection of Animals Kept for Farming Purposes recently adopted Recommendations on the keeping of domestic ducks, Muscovy ducks, hybrids (of Muscovy and domestic ducks), and fur animals. While any measures which aim to raise standards of care across Europe are to be applauded, there are a number of inconsistencies, omissions and areas requiring further clarification in these Recommendations which, unfortunately, weaken their impact.

On a positive note, the Recommendations clearly identify the meeting of species-specific needs as important in the keeping of all animals, and acknowledge the importance of regularly updating these Recommendations to keep pace with advances in our scientific knowledge. *Articles 21* (referring to fur animals and Muscovy ducks) and *22* (referring to geese and domestic ducks) highlight the importance of selecting for criteria that improve an animal's health and welfare, in addition to selecting for production criteria, and call for further research in this area. *Article 25* of each Recommendation requires that every Recommendation should be reviewed within 5 years of coming into force.

Other positive points include the specific statement that no animal should be kept for its fur if: i) the conditions of the Recommendation pertaining to the keeping of fur animals cannot be met; or ii) if the animal belongs to a species whose members, despite these conditions being met, cannot adapt to captivity without welfare problems (*Article 1*). Coupled with the statements that the design of enclosures must be such that they fulfil an animal's biological needs and should allow sufficient room to perform normal locomotory behaviour (*Article 9*), and the request from the Standing Committee to be informed annually of the results of research into the welfare, husbandry and humane killing of these animals (*Articles 23 and 24*), this declaration offers hope of real improvements and rapid change within the fur industry.

The Recommendations also highlight provision of water to meet species requirements. Water for bathing, or at least enough for complete immersion of the head, is now recognized as an important biological requirement of geese, domestic and Muscovy ducks and must be provided for them (*Articles 10 and 11*). For fur animals, the opportunity to swim is identified as necessary for coypu but not for farmed mink. This is despite the earlier identification of the integral role that water plays in the ecology of the wild mink. However, indications are given that this is an area where change is likely as further research is published.

On the downside, despite laudable preambles and Articles that provide good reviews of the biological characteristics of each species, many of the issues these raise are not adequately addressed within the main body of the Recommendations. A notable omission is the failure to list minimum accommodation sizes for geese, domestic and Muscovy ducks; instead, the