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The use of non-human primates in research

EASAC believes there is a need for carefully selected research questions to be answered with the use of non-human primates, but believes this should always be subject to a rigorous assessment of the welfare of the animals, the potential scientific and medical benefits and the availability of other approaches in each case.

EASAC urges EU Institutions and Member States to recognise the case for the use of non-human primates in research, while ensuring their use is carefully regulated.

The need for non-human primates in research

There is a strong scientific case for the carefully regulated use of non-human primates in research where there are no other means to address clearly defined questions of particular biological and medical importance, at least for the immediate future.

An extensive study performed in the UK, *The use of non-human primates in research* (2006), chaired by Sir David Weatherall¹, highlighted the strong scientific case for carefully regulated use of non-human primates to investigate carefully selected research questions, including in:

- Infectious or communicable diseases, responsible for approximately 14.9 million deaths globally in 2002. Such diseases include HIV/AIDS, tuberculosis (TB) and malaria in which there is a major need to enhance the understanding of the basis of such diseases for the development of effective vaccines and treatments.
- Neurodegenerative diseases such as Alzheimer's and Parkinson's disease, and psychiatric conditions such as schizophrenia and depression. Two important epidemiological projects sponsored by the European Brain Council have established that brain disorders constitute up to 35% of the total burden of disease in Europe.
- Reproductive biology, for example research into infertility, contraception, methods to support pregnancy and the treatment of miscarriage and premature labour.
- Organ transplant survival and chronic disorders².

Studies using non-human primates are undertaken alongside other animal models and observational and interventional research using humans and *in vitro* approaches. However, in many cases, important findings could not have been obtained through other means. For example, initial research into Alzheimer's disease involved investigation and discovery of genetic factors associated with Alzheimer's in humans and focused on *in vitro* studies progressing toward use of transgenic mice. However, when advances were made toward development of therapies and treatments, it became clear that these methods did not provide sufficient information, and that results may actually have been misleading. Researchers therefore needed to conduct studies using non-human primates, which naturally show the same pathological hallmarks as humans, for assessment of the functional, cognitive and behavioural outcomes of potential treatments¹. Non-human primates are the only group of animals with brain circuits and networks that are similar to those of humans.

Welfare and regulation

It is essential that research using non-human primates, and other animals, should be subject to strict regulation. Furthermore, every attempt should be made to replace the use of live animals by non-animal alternatives; reduce the number of animals used in research to the minimum required for meaningful results; and to refine the procedures so that the degree of suffering is kept to a minimum.

The need for best practice in housing of all animals used in research including non-human primates is paramount. Support should also be given to the continued efforts of scientists to enrich the environmental conditions of the accommodation of primates.

To meet these regulatory requirements, EASAC considers that research using non-human primates should only be conducted in specific centres of excellence that have the appropriate experience.

The banning of research using non-human primates within the EU could contribute to it going overseas, which would take it out of one of the tightest and most widely regulated frameworks.

Recommendation

EASAC endorses the findings of the *Weatherall report* and urges the European Commission and the European Parliament to give full consideration to the scientific evidence demonstrating the need for carefully and tightly regulated research using non-human primates for carefully selected research questions.

References

1. Weatherall, D. (2006) *The use of non-human primates in research*. Available online at: <http://www.royalsoc.ac.uk/weatherall>
2. KNAW (2000) *Primaten voor biomedisch onderzoek*. Available online at: <http://www.knaw.nl/publicaties/pdf/20021025.pdf>

EASAC

EASAC – the European Academies Science Advisory Council – is formed by the national science academies of the EU Member States to enable them to collaborate with each other in providing advice to European policymakers. It thus provides a means for the collective voice of European science to be heard.

Its mission reflects the view of academies that science is central to many aspects of modern life and that an appreciation of the scientific dimension is a pre-requisite to wise policy-making. This view already underpins the work of many academies at national level. With the growing importance of the European Union as an arena for policy, academies recognise that the scope of their advisory functions needs to extend beyond the national to cover also the European level. Here it is often the case that a trans-European grouping can be more effective than a body from a single country. The academies of Europe have therefore formed EASAC so that they can speak with a common voice with the goal of building science into policy at EU level.

Through EASAC, the academies work together to provide independent, expert, evidence-based advice about the scientific aspects of public policy to those who make or influence policy within the European institutions. Drawing on the memberships and networks of the academies, EASAC accesses the best of European science in carrying out its work. Its views are vigorously independent of commercial or political bias, and it is open and transparent in its processes. EASAC aims to deliver advice that is comprehensible, relevant and timely.

EASAC covers all scientific and technical disciplines, and its experts are drawn from all the countries of the European Union. It is funded by the member academies and by contracts with interested bodies. The expert members of project groups give their time free of charge.

EASAC's activities include substantive studies of the scientific aspects of policy issues, reviews and advice about policy documents, workshops aimed at identifying current scientific thinking about major policy issues or at briefing policy-makers, and short, timely statements on topical subjects.

The EASAC Council has 25 individual members – highly experienced scientists nominated one each by the member national science academies, the Academia Europaea and ALLEA. It is supported by a professional secretariat based at the Royal Society in London. The Council agrees the initiation of projects, appoints members of project groups, reviews drafts and approves reports for publication.

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