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Failure of care

Laboratory animals must have the very best standard of care if we are to justify their use in science. As one institution is found wanting, others should look to review their animal-welfare practices.

In 1911, the United Kingdom made it a criminal offence for scientists, doctors and others to 'infuriate' animals in their care. It was a curious choice of words, and one that demonstrates the level of protection that British authorities sought — and still seek — to give rats, mice and other creatures. Such animals are vulnerable, and scientists who use them in laboratories, British law demands, must work to protect not just their physical well-being, but their emotional state too. As a result, researchers and those who support their efforts, including this journal, can respond to critics of the ethics of vivisection with the twin defences that the work is essential and carried out under strict controls.

It is infuriating, then, to see that legitimate defence of the use of animals in research weakened, as it has been this week by revelations of poor animal-research standards at one of the world's leading universities. The university, a new report finds, lacks adequate leadership, management, operational, training, supervisory and ethical-review systems to support high standards in animal use and welfare. It highlights an academic culture of complacency, of understaffed animal facilities, patchy training and poor supervision. It makes difficult reading for anyone who has ever argued for the use of animals in research.

The institution criticized is Imperial College London, but the failings and the problem almost certainly extend further. At a press conference held to release the report in London on 9 December, members of the investigating committee were keen to emphasize that they had witnessed no malpractice themselves during their inspections, but said that the improvements they suggested would make malpractice less likely to occur in future, at Imperial College or elsewhere. To manage and coordinate hundreds of scientists and support staff involved in work with animals is a complex task — one, the report says, that universities should take as seriously as running an individual academic department.

To be clear, the failings identified do not weaken the case for using animals in science — although the more strident opponents of vivisection will probably argue otherwise — but instead offer a clear demonstration that the ethical considerations of such work do not begin and end with its scientific justification. The day-to-day implementation of the task is as important as the purity of the goal. Those who take the moral high ground must, after all, be sure they stand on solid foundations.

The value of research with animals and the need for that research to be done properly should not be confused — and it is unfortunate that Imperial College chose to buttress its contrite official response to the review with polished summaries of the benefits of animal research for human health. That is not what this is about.

Imperial College has already said that it accepts all the recommendations of the committee that wrote the critical report, and is working to improve the situation. The failings identified are unlikely to be picked up in government inspections, and other institutions should carry out their own reviews. Imperial College commissioned the current report only after specific allegations of misconduct were raised by anti-vivisection campaigners. Other universities should not need to be asked twice.

In the case of Imperial College, the investigating committee had to tip-toe around the specific allegations, raised in April after an undercover investigation by the British Union for the Abolition of Vivisection. Those allegations are being looked at in a separate inquiry by the British government, which grants scientists and universities the licences necessary to work with animals, and sets out the required conditions. Not for the first time when it comes to academia, many of the proposed improvements centre on better and more constructive communication. E-mailed queries to project scientists from the technicians who supervise the animals, and who are best placed to spot if they are in discomfort, should be replaced with face-to-face meetings. Statisticians should be brought in to discuss projects at the planning stage, so as to ensure that the experiments will be properly powered and the results meaningful.

"The ethical considerations of animal research do not begin and end with its scientific justification."

What is most disappointing about the weaknesses exposed at Imperial College is that they come as the public-relations battle over the use of animals in research, in Britain at least, seems to have been won. Violent direct action against scientists and laboratories has ended. Public sympathy and political support for the work have been secured. A key part of that victory was the ability to stress, time and time again, that the research was permitted only because it was always done under the strictest possible conditions. We cannot say that today. ■

The patent bargain

An open-source patent database highlights the need for more transparency worldwide.

It may take a patent lawyer to fully understand the scope of US patent number 7,777,022, but one thing is clear: at first glance, it certainly appears broad. The patent includes 4.2 million genetic sequences, some of which were identified computationally in a fishing trip for sequences that have applications in virology.

In June, the US Supreme Court determined that patents should no longer be granted for 'inventing' naturally occurring human genes, ending 30 years of the practice at the US Patent and Trademark Office. The decision will probably affect the growing genetic-diagnostics industry, and its influence will extend to patents on genes from other organisms. But it did not abolish all claims on DNA sequences — some