Everyday ethics

THIS series gives readers the opportunity to consider and contribute to discussion of some of the ethical dilemmas that can arise in veterinary practice. Each month, a case scenario is presented, followed by discussion of some of the issues involved. In addition, a possible way forward is suggested; however, there is rarely a cut-and-dried answer in such cases, and readers may wish to suggest an alternative approach. This month’s dilemma, ‘Genetic testing for coat colour in cats’, is presented and discussed by Sean Wensley. Readers with comments to contribute are invited to send them as soon as possible, so that they can be considered for publication in the next issue. Discussion of the dilemma ‘Shortcomings in locum practice procedures’, which was published in the February issue of In Practice, appears on page 175.

The series is being coordinated by Siobhan Mullan, of the University of Bristol. It is hoped it will provide a framework that will help practices find solutions when facing similar dilemmas.

Genetic testing for coat colour in cats

You recently attended a cat show where a company was offering genetic testing for coat colour in cats. The test is performed on cells collected using a mouth swab. Is this an ethically acceptable scientific advancement?

Issues to consider

For some people, the availability of such a service raises concerns about the notion of ‘designer cats’ and the use of genetic testing merely for the pursuit of aesthetic preferences. However, at cat shows, all of the cats have been bred to comply with phenotypic requirements based on aesthetic preferences. Genetic testing, in effect, simply accelerates the selective breeding that is already being applied to animals in the showing population.

The notion of designer cats may conjure ideas that the animals are objects of folly for which external appearance counts for more than companionship and quality of life. However, many cat breeders will derive pleasure from their hobby while still meeting their cats’ health and welfare needs. It need not follow that a principal focus on aesthetics is incompatible with providing for positive welfare outcomes from an animal’s perspective.

If a breeder’s interest in superficial appearance is so keen that they wish to employ such tests, you might be concerned that they would disregard kittens that did not meet their cosmetic criteria. However, geneticists have suggested that non-disease-associated DNA tests may help avoid the production of undesirable animals that unscrupulous breeders might euthanase on cosmetic grounds (Mellersh and Sargan 2011). Any harm caused to animals must also be considered. Most veterinarians would not be troubled by the ethics of obtaining a buccal swab for the purpose of diagnosing or screening for inherited diseases. Sampling for reasons that do not obviously benefit an animal should prompt a more careful ethical assessment. The procedure involves inserting a cotton-tipped swab into the mouth between the cheek and gums. For a tolerant cat, the sampling lasts a few seconds and elicits minimal resistance.

Possible way forward

Science did not advance for this purpose. Initially, the National Human Genome Research Institute funded the sequencing of the dog genome so that it could be used as a model for studying the genetics of inherited disease in human beings (Mellersh and Sargan 2011). By furthering the understanding of inherited diseases in dogs, it facilitated the development of DNA tests for veterinary diagnosis and screening. A rudimentary feline genomic sequence has been published, which has similarly facilitated the development of tests for genetic diseases in cats (Gruffydd-Jones and others 2009). Tests for coat colour were an additional application of the techniques, not a driver.

The application of techniques for predicting coat colour is perhaps no less ethical than selective breeding for appearance. By preventing morally questionable euthanasia they could even be beneficial, although it would be preferable to achieve the same benefit by changing attitudes.

Selective breeding, however, has been linked to welfare problems in a variety of companion species, including cats. These problems arise from spontaneous, deleterious mutations and exaggerated body type. Increasing media, political, public and scientific attention has focused on these health problems in recent years and DNA tests are increasingly being developed to control and eliminate inherited diseases. Testing for coat colour would be less ethically justifiable from an animal welfare perspective if it was found to be hindering disease testing.
On the one hand, offering breeders tests for coat colour might help to raise awareness of the availability of DNA tests, including those for inherited disease. Perhaps the revenue generated by coat colour testing could strengthen the economic viability of a diagnostic laboratory that also offered disease testing.

On the other hand, coat colour testing may distract breeders from health testing or divert their budgets away from it. It could lend credibility to breeding for appearance rather than quality of life, counter to the shifting moral climate. Preventing this will depend on the promotion of health testing by all those concerned with feline health and wellbeing, including veterinarians. Mellersh and Sargan (2011) emphasise that veterinarians have an important responsibility to promote DNA tests for future breed health and to assist clients in understanding the results.

Diagnostic laboratories could play a part. As businesses, they could simply choose to respond to market demand or they could develop a marketing strategy to promote health testing, perhaps as part of their corporate social responsibility if the commercial case was equivocal. If the company was owned by veterinarians, there might be a greater ethical responsibility to ensure that its work, while remaining economically viable, maintained focus on improving the health of animals whose risk of disease had been increased by breeding for aesthetics.

References
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Any comments?
Readers with views to contribute on ‘Genetic testing for coat colour in cats’ should e-mail them to inpractice@bva-edit.co.uk so that they can be considered for publication in the next issue, or fax comments to 020 7383 6418. The deadline for receipt of comments is Friday, March 16. Please limit contributions to 200 words.