

Laboratory animals

SIR — In dismissing Christine Stevens' proposals (*Nature* 27 September, p. 295) for remedying the wilful ill-treatment of laboratory animals in the United States, Daniel Kline tells animal welfare groups what they should do to "breach the barrier" between them and the public (*Nature* 15 November, p. 191). Mr Kline's attitude towards these groups can be shown to be patronizing and based on prejudice and naivety by recommending to all (*sic*) scientists proposals analogous to his.

First, all groups of scientists should state unequivocally that they recognize that some types of animal experiments are unnecessary and cite which they do not support. Second, they should advocate legislation which allows animals experiments to be conducted only if adequate care of the animals and supervision of facilities can be paid for. Do people who breed and use animals for sport get special government support to ensure humane treatment of the animals? And is Mr Kline implying that the current standard of care is unsatisfactory and that, unless government funds are specifically provided to improve it, scientists will carry on regardless? Third, they should actively support access of a small percentage of unbiased people — journalists, for example — to "accredited and supervised" laboratories to verify that accreditation is indeed "an ironclad guarantee of first-class care and treatment of animals".

Unless such simple steps are taken and acted upon with sincerity, the public can only conclude that scientists do approve of the development of procedures such as the burning of rabbits' eyes with shampoos. The decision that people should be given huge sums of money to torture and kill animals for the benefit of mankind was not made lightly. However, just as the decision that some shampoos should be tested on rabbits' eyes involved the searching of our consciences, there are also situations, such as the need continually to develop "better" shampoos and "better" weapons, which can be avoided. It is in the power of groups concerned with animal welfare, including, I hope, Daniel Kline and other scientists, to take the few steps suggested above to the betterment of animals as well as mankind.

Meanwhile, what should be our response to those who break current laws to liberate/steal animals from scientific research institutes? Accept for the moment that these people are misguided. At the same time, Ms Stevens has convinced Mr Kline that "some animals are being abused in medical research". In spite of the reports of veterinary inspectors of the US Department of Agriculture (USDA) showing that "Harvard, Yale, Johns Hopkins, Vanderbilt, the universities of Utah, Rochester, Pittsburgh ... repeatedly violate USDA's minimum standards" (*Nature* 27 September, p. 295), Mr Kline's

response is to say "one can only sympathize with the animals and feel indignant at those persons who are involved". How should the law-breaking researchers be punished? Often, they too try to justify their action on moral grounds; their premise is that *Homo sapiens* is "superior" to all other animals. Regardless of legislation, the public will continue to provide financial support for the wilful ill-treatment of animals and from time to time protest in various ways.

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Who's confused?

SIR — Jamie Hook, in his letter on "Confusion about Chinese names" (8 November, p.95), implies that, whereas some Chinese hyphenate their given name, Europeans only hyphenate their family name but never their given name. The fact is that Europeans rarely use a hyphenated family name. Hyphenated family names are mostly used by Europeans whose name is common in their respective countries in order to make it more easily identified. In such cases the name of the town or village where the family originated is added to the primary name, separated by a hyphen. European women sometimes keep their maiden name after marriage and place it behind their married name, separated by a hyphen.

In contrast, hyphenated given names, consisting of two words that are used together, are very common in several European countries such as France and Germany and the Scandinavian countries.

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Virus vaccines

SIR — Robert Walgate's article (15 November, p.190) contains inaccurate statements about the technical qualities of commercially available hepatitis B vaccines. In discussing a decision by the government of Taiwan to employ human plasma-derived vaccine manufactured by Institut Pasteur Production (IPP)/Sanofi (France), the article includes a claim by Sanofi that their vaccine is more effective than the plasma-derived vaccine of Merck Sharp & Dohme (United States), because the antigenic particles of the latter vaccine "lack some important polypeptides", specifically the "pre-S" region of the hepatitis B surface antigen. The report states that "the 'pre-S' region appears to be important in generating full immunity to hepatitis B".

This statement is not supported by the known scientific evidence and the published literature. The established high-level protective efficacy of vaccines that do not include the "pre-S" region show that antibodies against "pre-S" are not needed to achieve immunity against hepatitis B. Indeed, vaccines without "pre-S" antigen have been proved highly effective in inducing immunity against hepatitis B in the extensive clinical and field studies carried out during the past several years.

There is, by analogy, no scientific reason to believe that IPP's hamster ovary cell-derived hepatitis B surface antigen vaccine, now under development and containing "pre-S" antigen, would be superior to vaccines lacking the "pre-S" region. In fact, such hamster cell line-derived vaccine raises questions of safety for man since the cell is mammalian and is transformed.

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Tunes not enough

SIR — Patrick Rabbitt's review of *Genius, creativity & leadership: Historiometric inquiries* by Dean Keith Simonton (22 November, p.383) provides yet another example of computer-obsessed silliness, in particular the laborious calculations resulting in the quantification of musical creativity. The first notes of 15,618 themes by 479 composers were compared in an effort to assess their relative originality. "He examined the first-order transitional probabilities between notes in each of these note strings and related them to a (here undefined) baseline computation for all transitional probabilities between notes." The computation appears to show a trough in originality between 1750 and 1820.

The historiometricians and their computers pay little heed to the shaping influences of rhythm, harmony, dynamics or tone colour. Beethoven's Waldstein sonata opens with a C major chord repeated thirteen times, the scherzo trio of Sibelius's second symphony with nine repeated notes as does the first choral entry in Verdi's Requiem. The very different characters of these themes are determined respectively by rhythm, the tone colour of a solo oboe and by the hushed quality of *pianissimo* choral singing. One wonders how these themes would have scored for "originality" against the baseline computation. Worse still, the historiometrician appears to have missed the point that originality most often lies in what a composer does with a theme rather than in the theme itself.

Computers are clearly useful in comparing the sequences of oncogenes, growth factors and their receptors. The evaluation of originality is best left to those intuitive enough to recognize artistic and scientific genius.

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