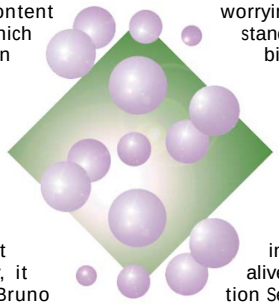
TOUCHING**base**

Matriarchy rules

To all but the youngest of *Nature* groupies, the name Maddox is emblematic of a period in which *Nature* not only pulled its socks up and refocused on delivering worthwhile content of high quality to its readers, but also a period in which it begat *Nature Genetics*. Sir John, who had a passion for editorializing, reigned as Editor of *Nature* for many years, leaving a legacy of peculiar intellect and old-world charm. One wonders if the gift of the written word is hereditary, for the next generation of the Maddox family includes the journalist Bronwyn Maddox and the talented Bruno Maddox who has recently published *My Little Blue Dress* which *The Times* (of London) declared "a clever and stylish first novel." But if good writing is indeed hereditary, it would seem to be X-linked—in *The Times*'s review, Bruno Maddox is recognized only as the "son of the biographer Brenda Maddox."



More on genetics and politics

Currently, the US bans the use of public money for human embryo research, leaving privately funded groups to get on with it. In a worrying development that seems to confirm his anti-science stance, US President George Bush apparently wants to forbid the use of all products of human cloning. A recent senate bill, backed by the administration, would forbid the use of any product of human cloning by anyone for any purpose. Senator Sam Brownback apparently knows all about this field of research and has reached the dogmatic conclusion that "there is no need for this technology to ever be used with humans...". And where should the US research community look for support in keeping cloning and embryo stem cell research alive? Surprisingly, no further than the staunch anti-abortion Senator Orin Hatch. Despite his earlier stance against human fetal tissue research, Senator Hatch has apparently written to President Bush in support of government-funded embryo stem cell research. Surely a perfect opportunity for the President to back down from his anti-stem cell position, and save face at the same time.

Some questions from *The Guardian* newspaper's "genome quiz":

What do the initials A, T, C and G stand for?
- a) Adenine, thymine, cytosine and guanine
- b) Anger, tearfulness, churlishness and greed
- c) Allspice, thyme, cinnamon and garlic
- d) Aren't they the singers in Steps?

What is *C. elegans*?
- a) A new leisurewear range from Calvin Klein
- b) Part of the male reproductive system
- c) A species of worm on which altruistic and brilliant British scientist John Sulston, who led the project in Britain, did much of his early work
- d) Iceland's top boy band

What causes many diseases?
- a) Tiny mutations in our genes
- b) Stress
- c) Supermodels
- d) Overdose of hyperbole from politicians

To test your knowledge on all things genetical, see the rest of the quiz at: http://www.guardian.co.uk/Archive/Article/0,4273,4034412,00.html

The power of screening

Although genetic screening for a small number of disease-causing mutations has been technically feasible for some time, national screening programs are rare when the benefits do not outweigh the expense. Establishing and managing a national genetic screening program would be expensive even for the relatively small UK population of 60 m. However the cost/benefit balance shifts in favor of screening every time a new high-risk mutation is discovered.

Sir Walter Bodmer, the former Director General of the UK's Imperial Cancer Research Fund and currently Head of the Cancer and Immunogenetics Laboratory of the John Radcliffe Hospital, suggests that with the recent discovery of a set of genetic variations (within *APC*) that signal a high risk of bowel cancer, the balance is in favor of a national screening program. Sir Walter argues that screening represents an increasingly efficient and modern approach to preventive medicine. Others offer a more cautious assessment. Reporting on the findings of a conference examining the implications of genetic screening, Vivek Goel of the Department of Health Administration, Toronto, Canada concluded that "...while the potential benefits of such programmes are huge, the risks are considerable, and indiscriminate use could overwhelm our health systems". (*B.M.J.* **322**, 1174–1178; 2001). To read more about screening, genetic and otherwise, see www.bmj.com/cgi/collection/epidemiology:screening.

Wholesome genetic modification

A recent incident in France is relevant to the *furore* over genetically modified organisms. Genetic engineering, we have been told, is "unnatural" and therefore to be avoided. (This might seem a tad rich from a country that has magnificently mastered the art and science of viticulture using crossing, splicing, grafting and other advanced forms of hybridization.) So it is with pleasure that we draw attention to a very unusual but, we can be assured, wholly natural experiment in species engineering. For a few months last winter Tilly, a female Shetland pony, and Bijou, a male circus zebra, engaged in behavior that has for time immemorial been sanctioned as "what comes naturally". Despite their genetic mismatch (ponies have a chromosome complement of 64; zebras, just 44) the product of their passion was born last month. In fact this is not the first report of a zebra-horse cross (there is a splendid example living in a game park in Missouri), which shows how readily Mother Nature tinkers with genetics in an endless and natural experimentation of what is possible.

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