Leading question

SIR — The unsigned leading article on the editorial page is the traditional and time-honoured vehicle for the expression of the views of the Editor on matters of moment in Nature, *as in other journals. News and Views, however, have always been accompanied by their authors' names — and more recently positions. It is, therefore, with some regret that I have read the anonymous full page "leaders"(?) which have introduced this section several times over the past few months, without being able to judge the bias of their originators.*

That is not the case in the article "Disputes about the Earth's interior" in Nature *of 23/30 December 1982 (300, 681) where the opinions aired are even more dogmatically and condescendingly expressed than is usual even in examples of this* genre. *Anyone prepared to express himself (themselves?) quite so contentiously should at least have the grace not to hide his name behind a masthead.*

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*LEADING articles, wherever they occur, are but opinionated reporting. Their function is not to be normative (*pace *the sociologists) but to inform, sometimes to entertain and to stimulate (sometimes by provoking). Anonymity is made necessary by the principle that while news is sacred, opinion is free and may even be that of editors, who must thus personally take responsibility.* — Editor, Nature.

Armchair mutations

*SIR — I can't help wondering whether the writer of "More speculation about oncogenes" (*Nature *18 November, p.213) was pulling our legs. In the first paragraph we are certainly warned that "those of an austere temperament should turn the page". The article discusses the problems arising from the discovery that the difference between a normal human gene and its equivalent in a human cancer cell is a single point mutation.*

I was intrigued to note that the article itself contained two point mutations and one deletion: namely "inknown" and "connot", point mutations of U and A; and "strenthened" clearly a G deletion. The relevant human gene discussed codes a 21,000 dalton protein; in other words, some 200 amino acids and 600 bases are involved. The article contains approximately 6,000 letters, enough "bases" for a 10 times larger protein, but with only one "mutation" per 2,000 bases. In spite of this low rate, I was surprised to find myself irritated and automatically corrected the errors. Does this behaviour go some way towards explaining the paradox alluded to by the writer?

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Stereo viewing simplified

SIR — The increasingly common use of stereo diagrams to illustrate the structure of proteins and other macromolecules poses for readers the problem of superimposing the images. In my experience many have difficulty with the simple devices constructed from two lenses or two prisms. I have observed recently that most people with normal vision can obtain stereo images using a simple reading lens. The stereo pair is observed with both eyes through a single lens (3-inch diameter, or better 4 inches x 3 inches) preferably without spectacles. As the lens is moved from the diagram towards the observer one of the images will be seen to move across and superimpose upon the other. Once they are locked together, the stereo image may be focused at a convenient magnification. The method works equally well with stereo pairs of micrographs. The effect of the lens is to decrease the convergence of the eyes required to fuse the images. The only disadvantage is that the right eye observes the left image and vice versa, so that with the normal printing convention the stereo effect is inverted, the back becoming the front. For cursory inspection this does not matter, but for detailed observation the diagrams should be interchanged (using a photocopy!).

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EEC and agriculture

SIR — I read with interest the news item from Brussels ("Science to rescue EEC politics?", 16 December 1982, p.567) concerning Viscount Davignon's initiative at the European Commission to utilize scientific research as a tool for dealing with the high cost of the EEC's agricultural policy. Current systems of production subsidy, wherever they occur, usually strive to maximize gross output at the farm gate by absorbing direct expenses, however large, if they are sufficiently widespread amongst producers.

A system focused on increasing farmers' net income by lowering costs, even on a smaller volume of production, would have value in any political arrangement. This is most likely to be achieved in the long run by investing in biological research. A number of promising developments in the plant sciences suggest the feasibility of using genetic mechanisms to displace a significant percentage of capital-intensive inputs, such as agricultural chemicals. In addition, externalities in conservation and toxicity might also benefit. Research and development are logical tools of political economy and plant molecular biology could have profound implications for agricultural policy in its international as well as its European dimension.

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U cells contain contaminants

SIR — Four sublines of the original U cell line have been found to be HeLa cell contaminants. The U cell line was established as a normal human amnion line by the late Dr H.J. Doorshodt in Utrecht, The Netherlands, in 1957[1]. One subline was obtained from Bilthoven (I), two sublines from Helsinki (II, III) and one from a laboratory in New York City (IV).

Cytogenetic analysis demonstrated five marker chromosomes characteristic of HeLa cells[2] in U cell sublines I, II and III. Four of these markers were also present in subline IV. Additionally, two marker chromosomes not previously reported in HeLa cells were observed in all four sublines. One marker was probably derived from a deletion of the short arm of chromosome 7 del (p11-7pter); the other represents a translocation between the long arms of chromosomes 4 and 11.

Electrophoretic analysis of ten polymorphic enzymes supported the identity of the four sublines as HeLa with the following concordant phenotypes: G6PD A, PGM1 1, GLO1 2, ACP1 AB, ADA 1, AK1 1, PGM3 1, PGP 1, ME2 1-2 and ESD 1. An exceptionally rare observation in subline II was the ESD phenotype tentatively typed as ESD "1-3" having one isozyme of the same mobility as ESD 1 and two slower migrating isozymes[3]. The number 3 allele possibly arose by mutation and selection in tissue culture.

The mistaken use of the U cell line as a normal human amnion line may not be critical in some studies, such as its term use in Finland in interferon assays, but would be in others, such as its recent use as a model normal human epithelial line unusually susceptible to Epstein-Barr virus infection[4].

Contamination by HeLa or other cell lines is prevalent enough so that genetic analysis should be routinely done before important studies and publication of papers involving cell lines.

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