

disease, health, and all that in current genetic jargon can be labeled as "complex traits." This complexity is the manifestation of gene-gene and protein-protein interactions, themselves interacting with the equally rich nongenetic environments in which they operate. Certainly, one post-genome goal should be to try to understand, even if for only a few apparently simple complex traits, how the enormous and exhaustive lists of genes and proteins actually work. After reduction to elemental parts, there must be resynthesis into complex systems.

John Crabbe

*Department of Behavioral Neuroscience, and
Director, Portland Alcohol Research Center,
Oregon Health Sciences University,
VA Medical Center (151W),
3710 SW U.S. Veterans Hospital Road,
Portland, OR 97201, USA
E-mail: jcrabbe@teleport.com*

Liberal Arts Colleges and Science Education

I'm tired of seeing letters from faculty at small liberal arts colleges (for example, 18 Oct., p. 326) piously proclaiming that they,

and they alone, are the only ones capable of reforming the way science is taught at colleges and universities. Although many faculty at research universities do not place much value on teaching, there is a growing cadre of faculty at such institutions who are strongly committed to undergraduate teaching and to the improvement of science education. In many departments and even across entire campuses, these groups are beginning to reach the critical mass needed to bring about substantial change. Although there are many reasons why reform at research institutions has lagged behind change at small liberal arts colleges, one of the most important is that the magnitude of the problems at large universities dwarfs that at small colleges. Indeed, it is not all that difficult to teach effectively when one is dealing with a class of 20 students, carefully selected for their homogeneity. It is another matter completely to deal with 100 to 250 students with a full range of abilities, backgrounds, and learning styles. If faculty at small, liberal arts colleges truly want to contribute to the improvement of science education on the national level, they should join with faculty at larger institutions to find ways of adapting the successes of small institutions to the realities of large ones.

Kenneth L. Verosub

*Department of Geology,
University of California,
Davis, CA 95616, USA
E-mail: verosub@geology.ucdavis.edu*

Sex and Gender

On the topic of sex and gender, I agree for the most part with G. A. Pearson (Letters, 18 Oct., p. 328) and am happy that the topic is being raised. However, I would suggest that, in discussions of biochemical, morphological, and physiological issues where reproductive hormonal characteristics are being studied, "sex" is the more useful term even when it is applied to humans. In psychological, social, and societal issues, "gender" is more appropriate.

Ethel Tobach

*Comparative Psychology Research Group,
American Museum of Natural History,
Central Park West at 79th Street,
New York, NY 10024-5192, USA*

Pearson complains that the word "gender" is misused interchangeably with "sex" in the scientific literature. The former is a term of art used by social scientists to refer

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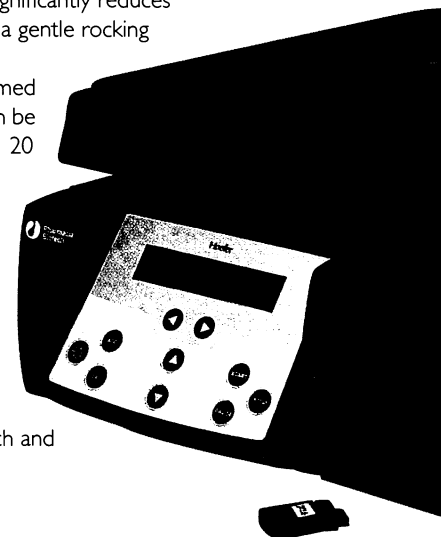
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