

Wrong Hookworm

In his otherwise informative article "New anticoagulant prompts bad blood between partners" (News & Comment, 29 Mar., p. 1800), Jock Friedly erroneously reports that the hookworm *Ancylostoma caninum* is believed to be the world's leading cause of anemia. Actually, *A. caninum*, a parasite of dogs, does not cause human hookworm disease, but is often used as an experimental model for hookworm research. The true human hookworms, *Ancylostoma duodenale* and *Necator americanus*, are believed to be a leading cause of iron-deficiency anemia.

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Importance of Teaching

I strongly agree with the National Science Foundation's (NSF's) education chief, Luther Williams, who is quoted by Jeffrey Mervis as stating that NSF alone cannot promote teaching at traditional research universities (News, 19 Apr., p. 345). Until

the culture of tenure and promotion at these institutions changes, why should tenure-track faculty members focus their efforts on the scholarship of teaching at the risk of "publish or perish" and of not obtaining prestigious research grants? It is a well-known fact that most senior faculty who make tenure-promotion decisions do not equate excellence in the scholarship of teaching with excellence in the scholarship of basic research!

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International Openness


The editorial "Keep borders open for U.S. science" by Felice J. Levine (22 Mar., p. 1649) concerning potential changes in immigration policy for foreign scientists prompts me to describe an unsuccessful attempt to obtain a visa for a postdoctoral fellow. The candidate, who is from India, applied to the World Health Organization International Agency for Research on Cancer for a fellowship to spend 1 year in my

laboratory to learn immunological methods for monitoring human exposure to chemical carcinogens; he subsequently received this prestigious and competitive award. Unfortunately, his visa application has been rejected because he could not provide documentation that he would return home after the 1-year training. This documentation must consist of a bank account, property, a job offer, or family ties. How many unmarried, recent Ph.D.'s in the United States could meet these criteria if they were required for a postdoctoral position?

The experience makes me wonder whether there is already an unofficial policy to restrict visas from certain countries for fear that such individuals will not return home. Such a policy would be detrimental to research both here and abroad.

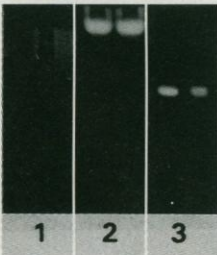
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Levine appears to confuse science with scientists. There is absolutely nothing in S.1394 which inhibits "international openness in knowledge and expertise." What is proposed is a limitation on immigrants (scientists and others), not any limitation on the free international flow of scientific in-

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formation. Perhaps diminishing the easy access to foreign scientists will spur the development of mechanisms to increase the numbers of U.S. scientists. We are all familiar with data that show that some 50% of Ph.D.'s granted in science and engineering by U.S. universities are to foreign nationals.

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If academics spent more time and effort encouraging science participation in the secondary schools and increasing the number of required courses for graduation from colleges and universities in mathematics, chemistry, biology, and physics, perhaps better-prepared American citizens eligible for consideration at the graduate level would appear. Several generations ago, the great chemical educator Joel Hildebrandt, when he was department chairman at his school, taught freshman chemistry. His rationale was that encouraging a beginning interest was too important to leave the introduction to graduate assistants. All too many educators today have no time for lecturing, as their future depends too much on their abilities in "grantsmanship."

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Scanning SQUID Microscopy

R. L. Greene's letter of 23 February (p. 1039) mentions the important contributions of F. Wellstood and his co-workers to our present understanding of the pairing symmetry of high- T_c superconductors, as well as the Maryland group's involvement in the development of scanning SQUID microscopy. Readers should also be aware of the original pioneering work in the field of SQUID microscopy at the IBM T. J. Watson Research Center in the early 1980s. F. P. Rogers, then a co-op student from the Massachusetts Institute of Technology, working with S. Berman of IBM, developed the first scanning SQUID microscopy and demonstrated sensitivity to individual superconducting flux vortices (1). An integrated thin film version of the SQUID system used by Rogers and Berman, from which all subsequent designs used in the recent IBM work were derived, was disclosed in the early 1980's and was ultimately published in 1985 (2).

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References

1. F. P. Rogers, thesis, Massachusetts Institute of Technology, 1983.
2. S. Berman *et al.*, *IBM Tech. Disclos. Bull.* **27** (10a), 5847 (1985).

HERG Sequence Correction

Since our 7 July 1995 report "HERG, a human inward rectifier in the voltage-gated potassium channel family" was published (p. 92) (1), two previously undetected differences between our expression clone and the published nucleotide sequence (2) have been identified: T593A, yielding amino acid change V198E; and C605T, yielding P202L. These differences are thought to be the result of artifacts generated by use of the polymerase chain reaction technique. The fundamental consequence of the two mutations is a variable reduction of inward rectification. Full characterizations of the mutant and the wild type phenotypes will appear in a subsequent report.

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References

1. M. C. Trudeau *et al.*, *Science* **269**, 92 (1995).
2. J. W. Warmke and B. Ganetzky, *Proc. Natl. Acad. Sci. U.S.A.* **91**, 3438 (1994).

Letters to the Editor

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