

SCIENCE ENGINEERING AND DIPLOMACY FELLOWSHIP

Applications Invited

The American Association for the Advancement of Science (AAAS), in cooperation with the Department of State, is seeking applicants for two Science, Engineering, and Diplomacy Fellowships. Fellows will spend 1 year, beginning 1 September 1982, working as staff officers in appropriate Bureaus of the Department of State, for example, the Bureau of Oceans and International Environmental and Scientific Affairs.

Potential assignments may include assisting in developing and negotiating procedures with coastal nations for the conduct of marine scientific research, working on various international aspects of energy and/or nuclear nonproliferation, assisting in monitoring and examining bilateral scientific and technical agreements, performing analysis in politico-military areas such as strategic forces questions, or helping to carry out new Department of State responsibilities for coordinating the international science and technology activities of more than 29 federal agencies.

Prospective fellows must demonstrate exceptional competence in some area of science or engineering, be flexible, have some experience and/or a strong interest in applying knowledge toward the solution of problems in the area of foreign affairs, and have a Ph.D. or equivalent in years of experience.

Salary will be at the GS 11 or GS 12 level depending on education and experience. (For reference, GS 12, step 1 salary level is approximately \$25,000.) A *secret* security clearance process will be initiated by the Department of State after selection. The *secret* level clearance must be obtained before a selectee can begin work in the Department.

Deadline for receipt of application is 19 February 1982. For application details and materials write:

**Science, Engineering, and
Diplomacy Fellows Program
AAAS**

**1776 Massachusetts Ave., NW
Washington, D.C. 20036**

If the nation does not approach air pollution control on this basis, we will risk spending more than is necessary to meet our air quality goals, and limited resources will be diverted from more productive uses. We believe the 1-gram-per-mile automobile NO_x standard will produce no significant benefit and is thus a poor bargain for the consumer.

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Important Distinction

In his Nobel lecture (10 July, p. 172) on studies in histocompatibility, George D. Snell mentions the association between H-2 haplotypes and responsiveness to the induction of cleft palate by glucocorticoids in mice and notes that the susceptible A strain has a relatively high spontaneous rate of the same defect. This is incorrect. The spontaneous malformation that A mice have is cleft lip, which may or may not be accompanied by cleft palate (1), whereas the corticoid-induced defect is cleft palate, and it never occurs together with cleft lip (2). The distinction is important because the conditions are different in numerous respects—etiology, genetics, epidemiology, embryology, morphology, and pathology—in both mice and people (3). I thank Snell for making a complex subject lucid and for providing this favorable occasion for recalling the facts.

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References

1. H. Kalter, *Teratology* 20, 213 (1979).
2. F. G. Biddle, *Adv. Stud. Birth Defects* 1, 88 (1979).
3. J. Warkany, *Congenital Malformations* (Year Book, Chicago, 1971); A. Burdi *et al.*, *Teratology* 6, 255 (1972).

The condition to which Kalter refers was originally described by Reed and Snell (1) under the title "Harelip, A new mutation in the house mouse." Kalter is correct in stating that, in the spontaneous form, cleft lip can occur without cleft palate. In the particular strain we were studying, however, a derivative of the Bagg albinos that was not highly inbred, it was observed alone only once in a good many cases. In all the other cases, some degree of cleft palate was present.

With respect to the genetics of the trait, the induced form is clearly dependent on the H-2 genotype (2). Because of

this, I ventured to ask, in connection with the cleft lip locus identified by Reed and Snell, "Could this have been the first identification of H-2?" Subsequently, Gasser *et al.* (3), using congenic lines with H-2 differences on different genetic backgrounds, showed that the spontaneous form, unlike the induced form, is independent of H-2. The speculation implied in my question is thus not substantiated, and the difference between the spontaneous and induced forms stressed by Kalter is further emphasized.

My thanks to Kalter for raising these points.

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References

1. S. C. Reed and G. D. Snell, *Anat. Rec.* 51, 43 (1931).
2. J. J. Bonner and H. C. Slavkin, *Immunogenetics* 2, 213 (1975).
3. D. L. Gasser, L. Mele, D. D. Lees, A. S. Goldman, *Proc. Natl. Acad. Sci. U.S.A.* 78, 3147 (1981).

Education and Industry

D. Allan Bromley (Editorial, 10 July, p. 159) appears to place the burden on industry for correcting a problem brought about by the educational establishment's failing to keep its own house in order. It is not industry that has forced the costs of education up and kept faculty salaries low; it is an interest in research to the exclusion of education at "better" colleges and universities and a sad lack of interest in devoting money or manpower to improving the quality and efficiency of the educational system. For example, how extensive is the commitment of leading "educational" institutions to programs such as the following:

- Taking advantage of the new personal computer technology to provide quality computer-aided instruction for background material so that classroom time across the country can be more effectively used for personal interaction.

- Videotaping the best lecturers in action so that faculty time can be saved and additional dollars made available for graduate or upper-class student assistants.

- Arranging with large corporations to pay the tuition of students selected, say, at the end of their sophomore year who would agree to work for that corporation for some period after graduation.

- Improving utilization of summer vacations or long academic breaks to increase overall financial efficiency.

- Finding ways to safeguard academic