### SCIENCE'S COMPASS

studied induce expression of c-Fos in the caudate-putamen, but not all induce this gene in the nucleus accumbens (1). Activation of the nucleus accumbens is neither necessary nor sufficient for addiction.

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#### Scientists in the Courtroom

The 2 April article "Court views engineers as scientists" by Jeffrey Mervis (News of the Week, p. 21) includes a curious quote from Richard Meserve, the attorney for the U.S. National Academy of Engineering (NAE), which filed a brief in the U.S. Supreme Court case Kumho v. Carmichael. The attorney states that experts "ought to be embarrassed if a judge finds their testimony not acceptable." This presumes that judges are never biased and never misunderstand the scientific issues. Ironically, in struggling with issues of scientific evidence, some courts have promulgated pseudo-science, for instance, holding that it takes a doubling of epidemiological risk to imply that a toxic substance is more likely than not to have caused an individual's disease. This is scientifically false (1). The statement that a scientist should be embarrassed by a negative judge's ruling also presumes that other scientists would agree with the decision, and it presumes that higher courts will not overturn the decision. But most important, the statement ignores the fact that scientists are often barred from testifying for reasons having nothing to do with the reliability of their science. Instead, the judge rules that the expert's science is not relevant to the legal issues in the case.

No judgment about a scientist's worth should be made merely on the basis of a statement that a judge barred his or her expert report from a proceeding. This will only discourage scientists from bringing their knowledge to the courtroom.

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# Origin of the Japanese **Population**

I read with great interest the article by Dennis Normile (News of the Week, 5 Mar., p. 1426) about the origin of the Japanese population. Recently, there has

been an increasing interest in the origin of Japanese (1) and Chinese (2) populations. Relevant to this question, we have identified a splicing mutation that causes glycogen storage disease 1a (GSD1a), 727G RT, in the glucose-6-phosphatase gene. The incidence of the mutation in our local Chinese population is 1 in 385 (3). This same mutation has also been identified in the Japanese population with an incidence of 1 in 432 (4). The 727G RT mutation accounts for a majority of the GSD1a cases in both Hong Kong Chinese and Japanese. Interestingly, this mutation is absent in other ethnic populations. We have also identified the polymorphism 1176C/T in the 3' untranslated region of the same gene (5). All studied 727G RT mutant alleles are linked to the polymorphic marker 1176C in both Chinese and Japanese populations (seven Chinese and nine Japanese; P = 0.0000047) (6).

Thus, it is most likely that the 727G RT mutations in Japanese and Chinese populations descend from a single event. This observation supports the notion that Japanese and Chinese GSD1a patients share a common ancestor, providing an interesting complement to the anthropological evidence for the origin of these two populations. Our finding is consistent with other recent molecular genetic findings (1) indicating that the Japanese derived from the Chinese population. The ancient mutation we describe in the glucose-6-phosphatase gene will enhance the tracking of the origin of the modern Japanese population by determining its prevalence in Chinese from different provinces of China (2).

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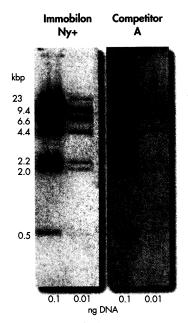
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## A Fidgeter's Calculation

J. A. Levine et al. (Reports, 8 Jan., p. 212) fed extra calories to human subjects and attributed the lack of weight gain in some of them to their fidgeting. Since my wife describes me as a consummate fidgetarian, I initially thought that one of life's little mysteries, the fact that I do not gain weight easily, had been solved. However, I am also a muscle biophysicist by trade, so I decided to pursue this

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