Iceland's recently passed bill approving a privately owned central database of health records is defended in a letter from an Icelandic government official. Two Georgetown University faculty members offer their views of a grievance filed by the faculty against the administration and express hope that the administration will reconsider their decision about a university-wide compensation policy. An animal husbandry expert says that "making transgenic livestock by injecting livestock [is not likely to] make livestock cloning obsolete." The use of phytolith analysis to date the origin of agriculture in South America is questioned. And the staffing of adequate science and technology experts in the U.S. State Department is advocated.

Iceland's Central Database of Health Records

In the article "Opponents criticize Iceland's database?" by Martin Enserink (News of the Week, 30 Oct., p. 859), a number of critics of a proposed bill of law on a central health records database then under discussion in Althingi, the Icelandic parliament, are cited. The bill has since been revised, passed with almost a two-thirds majority, and has become law in Iceland (M. Enserink, News of the Week, 1 Jan., p. 13).

The article reviews only the negative comments that have appeared, and there is no analysis of the contents of the bill, including its numerous stipulations dealing with data protection and with precautions to prevent misuse of information.

A subsequent letter to the editor by B. Andersen (11 Dec., p. 1993) is incorrect in its statement that Icelandic patients' ability to use their health records for various purposes are limited by the bill.

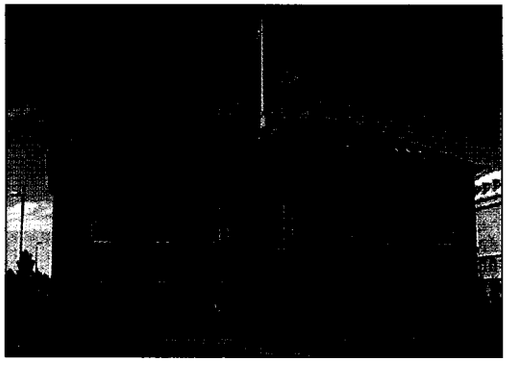
In fact, the law has been very carefully drafted, taking into consideration the international obligations that Iceland has undertaken. It has been submitted to reviews by Icelandic and foreign authorities on the issues dealt with, and revisions have been made based on the many constructive comments that were received

The bill has been harshly criticized, but it has also received substantial praise for its progressive stance and its promise to preserve human rights while facilitating scientific endeavors for the benefit of health.

Iceland has outstanding health statistics, a high quality of health care, thorough patient and genealogy records, and a well-educated public in favor of participating in an experience such as the one proposed in the bill. This situation imposes on us an ethical obligation and gives us a unique opportunity to promote medical sciences.

The ethical and legal issues under consideration are not unique to Iceland. The dilemmas we are facing in developing a system that facilitates progress while preserving patient rights are complex and deserve a thorough analyses.

The need for an informed public debate is recognized, and thus drafts of the proposal in three languages have been put on the Internet at various stages to enhance the active participation of as many as possible. Those readers who would like further information are referred to www.stjr.is/htr.



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Iceland's parliament, Althingi, gave the go-ahead for a controversial central health record database.

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Georgetown Faculty Grievance

We would like to amplify the ScienceScope item "Georgetown faculty on warpath" (11 Dec., p. 1967). In December 1997, 18 tenured Georgetown University Medical Center faculty filed a grievance against Medical Center Executive Vice President Sam Wiesel and University President Leo O'Donovan for instituting a faculty compensation policy that was enacted at their behest by the board of directors without faculty approval. The grievance asserted that the policy violated the tenure contract with the university as well as the principles of academic freedom and economic security set forth by the university in the Faculty Handbook, a code of conduct and governance developed by the board.

The grievance was adjudicated in accordance with the university's grievance code, first by a grievance panel chaired by faculty member Sam Dash, which affirmed the grievants' position and mandated that the plan not be implemented, and second, upon appeal by the administration, by the full university Grievance Code Committee, which also found in favor of the grievants. The last level of appeal was to be to a university executive vice president designated by the president, but he declined to appoint a designee, and therefore, by default, the grievance process ended and the committee's decision was declared final.

However, unbeknownst to the committee, the president convened a meeting of several board members to ask that they nullify the committee's decision, prohibit further grievances concerning the policy, and suspend the policy, but not retroactively to 1 July (*1*). By taking this extraordinary action, the president and board of directors not only illegally nullified the grievance process but enlarged the scope of the grievance to encompass all tenured faculty at the university's Medical Center, Main Campus, and Law School. Because during the ensuing year, attempts to resolve this issue with the administration have been met with anything but "the spirit of cooperation and collegiality" as has been proclaimed, the grievants have been left with little alternative but to file a lawsuit. It is still hoped that in the best interests of faculty and students alike, the president and board will reconsider their decision to suspend due process and reaffirm the university's obligation to tenured faculty, principles that have been the cornerstone of Georgetown University for 200 years.

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References and Notes

1. C. Risen, *The Hoya*, 6 November 1998 (www.thehoya.com/news/110698/edit.htm); Editorial, *ibid.* (www.thehoya.com/editorials/110698/edit1.htm); Viewpoint, *ibid.*, 13 November 1998 (www.thehoya.com/viewpoint/111398/view1.htm)

Livestock Cloning

Anne Simon Moffat does a fine job in her article "Improving gene transfer in livestock" (News of the Week, 27 Nov., p. 1619). However, I do not agree with the fi-

nal statement that the improved efficiency of making transgenic livestock by injecting oocytes "might even make livestock cloning obsolete." It is true that a particular gene incorporated into the germ line of a bull might be widely disseminated through the use of the bull's sperm for artificial insemination. But one must recognize that the technique of inserting a gene into a cow's oocyte, followed by fertilization, culture, and transfer produces an embryo of unknown genotype. Every oocyte used will be genetically different and progeny produced will be different. Many will not be superior for use in commercial agriculture. Cloning of cell lines derived from selected superior genetically engineered livestock, for example, likely will not be obsolete.

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Phytolith Analysis

Heather Pringle (Special Section, Archaeology, 20 Nov., p. 1446) cites recent plant opal phytolith research by Dolores Piperno and Deborah Pearsall bearing on the question of agricultural origins in South America. Those of us with long experience in the development of phytolith analysis are convinced it has enormous potential, especially in such areas as archaeobotanical research. However, identification using phytoliths is complex and difficult to apply at refined levels of taxonomy. The evidence cited as the basis for major revisions of the time and place of agricultural origins in South America is grounded in taxonomic protocols that are questionable, and conclusions derived from them are premature at best.

What is the quality of the evidence given by phytoliths (right, 100 micrometers in diameter) about the origins of agriculture in South America?

Problems of phytolith systematics remain daunting in spite of considerable progress. Phytoliths are structural elements, so homologous structures in unrelated plants often produce the same silicified morphological form. For example, the spherical phytolith illustrated prominently in the article is a form that can be produced in squash *(Cucurbita* sp.), but not exclusively. This same allegedly squash-derived form is produced in unrelated flora of the Ecuadorian region, such as *Bursuraceae,* as Piperno illustrates (*1*) and in *Annonaceae* (*2*). In addition, we know from control studies that soil conditions, especially available moisture, can cause substantial variation in the mean and range of size values in phytolith populations derived from members of the same species from one year or one place to the next. On the other hand, shape remains stable even in the presence of significant size modulation. The evidence of size change in spherical phytolith populations is presented in the context of a period of climatic change. Thus the evidence for domesticated squash is ambiguous. Phytolith size difference is not by itself proof of domestic versus wild taxa. It is not even certain that either or both populations purported to show a transformation from wild to domes-

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