

contacts with colleagues from "underprivileged" countries. I have just returned from a visit to Russia, where computer technology is essential for scientific survival and where they have e-mail contact with colleagues all over the world, but have no money for sending fax letters. My colleagues at Indonesian universities do not have yet e-mail connections because their institutes have no reliable telephone connections. But in every city quarter and on every university campus there are private telephone offices with 24-hour service for telephone and telefax connections all over the world. It is just a matter of time before e-mail and other Internet connections will be used as much as in current high-income countries.

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### Nile Delta Erosion

The main reason for the erosion of the coast of the Nile delta is even more simple than that presented in the Random Samples item "Irrigation speeds Nile delta erosion" (8 Mar., p. 1369) and is known in Egypt. In 1983, I was on a United Nations advisory

panel that looked into the shore erosion of the Nile delta. Our activities included a site visit, the review of many studies, and discussions with Egyptian engineers and scientists. It was known at that time that the causes were not directly related to the Aswan high dam. Many years ago, a low dam was built a few miles upstream from the Nile's Damietta mouth, and another one was built a few miles upstream from its other mouth (Rosetta). We were told that no water flows into the Mediterranean Sea through either of the two mouths, except for a week or so each year when water is discharged to flush wastes from the river in this region. Thus, very little sediment can be transported to the littoral. It was our understanding that all of the water in the Nile River is either used or lost as a result of evaporation or leakage through the bottom and sides of the irrigation systems (1).

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### New Database

The development and approval by the Food and Drug Administration of several drugs that are inhibitors of human immunodeficiency virus-1 (HIV-1) protease (J. Cohen, *News*, 9 Feb., p. 755) (1) is arguably the most significant success of structure-assisted drug design thus far. The initial, and very crucial, step of this process was the determination of the structure of HIV-1 protease in complex with inhibitors. The first such structure was published just over 6 years ago (2), and the extent of involvement of protein crystallographers in subsequent studies has been unprecedented. It was estimated that more than 160 structures of such complexes were solved in at least 20 laboratories by the end of 1993 (3), and the number of structures has probably tripled by now. Because the vast majority of these structures were solved in pharmaceutical companies, only a small fraction of them are publicly available. This extraordinary collection of structures of a single protein [and of its variants, such as HIV-2 and simian immunodeficiency virus (SIV) database proteases, as well as drug-resistant mutants] could provide a unique source of information about ligand-enzyme interactions that might be useful in future drug design efforts.

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In addition, it should be possible to learn more about the plasticity of enzyme active sites, modes of interaction of small molecules with proteins, the influence of crystal contacts on structure, and even the accuracy and precision of protein structure determination.

For these reasons, we have embarked on a project sponsored by the National Institutes of Health to assemble all the existing structures of HIV-1, HIV-2, and SIV proteases into a single collection. With the completion of the design stage of HIV-1 protease-inhibiting drugs, some of this information might soon be lost. We are convinced that, with several drugs on the market, the need for confidentiality of these structures is gone. Furthermore, it is unlikely that many of the structures will be added to the Protein Data Bank, because their quality will not be sufficiently high to pass the standards expected for fully refined structures. For this project, however, the availability of such partially refined structures, which were used in guiding the drug design effort, would be crucial.

To be successful, the project will need full support from all parties that have participated in such efforts. These data would be available to the community without restrictions and could be accessible through

the Internet. As a minimum, each structure would be available as crystallographic coordinates and transformed into a frame of reference common to the whole collection. Because the process of data accumulation and processing is in the early stages, we are requesting comments and suggestions about how to present data in the most useful way. We also urge all holders of such data to submit them for inclusion in the database.

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#### Affirmative Action

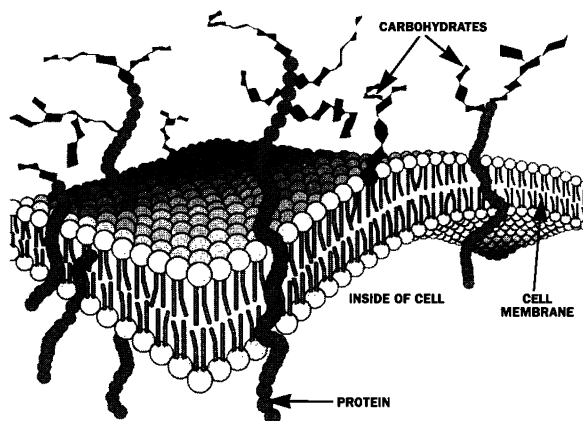
An article by Marcia Barinaga about affirmative action at the University of California (UC) (News, 9 Feb., p. 752) implies

that the UC faculty are strongly opposed to the Regents' recent actions dismantling race and gender preferences in hiring, contracts, and admissions. In fact, as a recent random Roper poll of 1000 faculty indicated (1), there is little faculty consensus on these policies. This poll revealed that many individuals in favor of affirmative action regard it as a policy promoting only *equal opportunities* for all groups, not *preferences*, as such policies are often interpreted in practice. All nine representative campus assemblies have called upon the Regents to rescind their actions, but these votes may have been as much about objections to the Regents intrusions into governance of the university as about the policies themselves. Moreover, those who attend and vote at these "representative" bodies include a disproportionate number of vocal spokesmen for politically activist ideological positions. As the poll indicated, there are significant differences among the disciplines. In the arts and humanities, the poll revealed 66% favored using race and sex as admissions criteria, while only 38%, for instance, of the computer science and engineering faculty agreed with this view (1).

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