Subjects were said to have had annual physical examinations whereas assessment times in fact ranged from 2 months to 6 years. Because of all these flaws, said the committee, "conclusions linking the efficacy of these therapies to growth and development are not warranted."

This report, completed in August 1986, was reviewed along with raw data by a committee of three outside researchers: Robert W. Berliner of Yale University, Gustav Schonfeld of Washington University, and Robert B. Uretz of the University of Chicago. They agreed that the study was not prospective and that "no meaningful interpretation of the results is warranted."

Glueck has defended himself in a 303page rebuttal that he delivered to the university last November. Glueck maintained that the studies were indeed prospective, citing opinions to that effect from five researchers to whom he had sent copies of the article in the course of preparing his response.

He admitted to "some errors and inconsistencies" but contended that these "were random, not intentional." Part of the problem, he said, was that notebooks containing study data had been put in storage and could not be found at the time data were being analyzed, so he was forced to rely on data from patient charts, which were later found to be incomplete.

Glueck defended the qualitative data on maturation and school performance as being "summarized from a believable data base" in notebooks and charts, as well as his "intimate knowledge" of the patients. He told *Science* that these data were "a very minor part of the paper" and that the committees placed "a huge, perhaps disproportionate, amount of emphasis" on them. He said that in retrospect, "perhaps a better word would have been 'clinical impressions' or 'anecdotal clinical impressions.' "

Glueck said the data were reanalyzed after the notebooks were found (after publication of the *Pediatrics* paper), and that a reanalysis with revised data "shows that the fundamental results and conclusions reported in the paper are valid."

Glueck pleaded "severe work load overcommitment" as the principal reason for the flaws in the study. He said he was working 70 to 80 hours a week and was principal investigator on five other major studies in addition to clinical and administrative responsibilities. "It is my firm belief that this flawed paper was an isolated, aberrant fluke."

The university committee was unsympathetic with Glueck's response and said it "does not materially alter" its findings. It pointed out, for example, that the researchers who thought the study was prospective

did not have access to any of the raw data. The committee made clear its disappointment with Glueck, noting that he failed "to objectively consider the suggestions and criticisms of his colleagues and peers" before the paper was published. It expressed "dismay" at his "apparent lack of recognition of the seriousness of his action."

Glueck stuck to his guns in a "surrebuttal," adding that "the unintentional errors are a humbling aberration. . . . "

Glueck is described by one colleague, Peter Kwiterovich of the Johns Hopkins University School of Medicine, as "a very energetic investigator . . . aggressive and hard-driving." He suggests that, in view of the current intense interest in cholesterol, Glueck may have been overhasty. "I think Glueck had this data and he was anxious to get it published."

According to Donald Harrison, senior vice president at the university's Medical Center, the university committee is still looking into possible problems with regard to the other studies in which Glueck has participated.

In addition to the 2-year debarment, the NIH committee recommended that Glueck be barred from serving on peer-review committees for 5 years and that he "immediately

retract or issue a clarification" of the *Pediatrics* paper. It also said that notification of the investigation should be sent to editors at Elsevier-Australia, which has a manuscript based on the study; *Pediatric Research*, where Glueck submitted a paper based on the reanalyzed data, and the *New England Journal of Medicine*, where he published a letter referring to the study.

The NIH is currently auditing Cincinnati projects in which Glueck was involved. According to Mary Miers, the NIH misconduct policy officer, these include a National Heart, Lung and Blood Institute contract for lipid research that has involved the expenditure of \$12.5 million since 1972, and a \$1.5-million annual grant from the Division of Research Resources to the General Clinical Research Center.

Glueck, a member of one of Cincinnati's most prominent families (his father was president of Hebrew Union College), is now director of the Cholesterol Center at the Jewish Hospital of Cincinnati. The hospital says Glueck "has a distinguished reputation both on a national and international basis," and it is "privileged" to have him.

Glueck says he is likely to appeal the NIH finding once he receives formal notification. 

CONSTANCE HOLDEN

## British Space Chief Quits in Protest

The head of Britain's space program, Roy Gibson, has resigned in protest at Prime Minister Margaret Thatcher's decision to reject his request for a significant increase in the British government's support for space research. The government's decision is likely to require Britain to drop plans for the construction of the polar platform which its space engineers had hoped to build as their contribution to the proposed U.S. space station.

Gibson, a former director of the European Space Agency, was brought in 2 years ago to head the British National Space Centre (BNSC), which was recently created to coordinate the space activities of different government departments. Gibson said last week that the immediate cause of his resignation was the government's refusal to provide an extra \$11 million requested by ESA as Britain's contribution to the extension of design studies on a new launcher, Ariane V, and on Columbus, a set of hardware that will represent Europe's contribution to the space station.

The design studies should be completed for a meeting of space ministers in November, which is intended to reach a firm agreement on Europe's medium-term space plans. In particular, this meeting will have to address the fact that support for Ariane V, Columbus, and the space plane Hermes would require member states to double their space budget over the next 5 years.

The BNSC has supported this strategy, and had submitted plans to the Cabinet suggesting that Britain should approve such an increase in its space budget. Gibson's resignation follows a statement from Thatcher that, for the time being, there will be no increase in Britain's space budget, and that any extra funds will have to be found from the private sector (*Science*, 7 August, p. 597).

"This means that we are effecively out of both Columbus and Ariane V" a spokesman for the BNSC said last week. Previously, it had been hoped that the British government would provide about 15% of the funding for Columbus—and that in return British Aerospace would have received the contract for the construction of a polar platform that will operate from the space station. "We will not necessarily be excluded from Columbus forever. But once you drop out of a certain phase of a program, it is very difficult to get back in," the spokesman added.

DAVID DICKSON