

that raw data were missing for each of the suspect studies. However, it does not speak directly to the overall issue of whether the original data for many of Darsee's dozens of other experiments at Harvard were unaccountably missing—a contention of sources quite close to the laboratory (*Science*, 29 January, p. 478).

Nonetheless, the nearly 100 papers and abstracts published by Darsee were judged by the committee to be in order. "A systematic review of all work involving Darsee has been conducted by Drs. Kloner and Braunwald. Primary data have been reviewed and Darsee's co-workers have been questioned. The committee is convinced that Drs. Braunwald and Kloner have documented the extent of the irregularities and properly concluded that the previously published work from the laboratory in which Darsee was a member of the group is accurate. None of the work under suspicion has been published. The papers and abstracts containing fabricated data have been withdrawn."

The report makes no mention of the possibility of future publications. A review of the literature, however, might lead one to believe that Darsee will continue to present papers based on his work at the Brigham. The advance program for the 31st annual Scientific Session of the American College of Cardiology lists an "original contribution" from Darsee and Kloner, scheduled to be presented at the Atlanta meeting in April 1982. Braunwald, however, told *Science* that this and any other work by Darsee that was in the mill has been withdrawn.

Another issue not addressed by the committee in its report is the fact that the colleagues of Darsee's who witnessed the "single bizarre act" soon afterward told Kloner and Braunwald that they suspected Darsee was systematically faking a major part of his prodigious output. According to chairman Ross, the committee did not meet with any of these colleagues.

At the Harvard news conference, Braunwald emphasized the lack of evidence of widespread problems in May and explained why he chose not to make the case public. "At the moment we had a brilliant person," he said. "He clearly was one of the most outstanding, or the most outstanding, of the 130 research fellows I have been privileged to work with. Public disclosure would have ruined him for life. We felt that to do this on the basis of a single incident would have been extreme. So we took a guarded position."

"Institutional Response"

The majority of the section of the Ross committee report that deals with Harvard's "institutional response" follows:

The committee examined the response of the Harvard Medical School to the Darsee incident from the date of discovery on May 22 to the present time. The purpose of this examination was to determine whether any future steps should be taken, whether Dr. Darsee had been treated fairly and what lessons might be learned with regard to the handling of such unfortunate events if they should occur in the future.

The response of the Harvard Medical School should be considered in two phases in accordance with the information available at that time. The first phase response began in late May and early June, following discovery and admission of data falsification by Dr. Darsee. Dr. Darsee's fellowship was terminated on June 30, and his faculty appointment, which had been offered for the following year, was withdrawn. The Dean's Office was notified, and abstracts of work in question were not submitted. Unfortunately, Dr. Holman, Dr. Darsee's collaborator in the Division of Nuclear Medicine did not learn of the fabrication of data in the "Extension vs. Expansion Study" until November and was not informed that Dr. Darsee's appointments had been terminated.

The second phase response occurred in October and November and was initiated by the discovery of the irregularities in the data [for two studies]. At this point in October and November, when it seemed likely that more than one episode was involved, the granting agency [the National Heart, Lung, and Blood Institute] was notified and two manuscripts . . . were withdrawn. Dr. Darsee agreed not to present any papers originating from the Harvard laboratories at the annual meeting of the American Heart Association. Officials at Emory University were notified that there were questions about Dr. Darsee's work. . . . In November, the Dean of the Harvard Medical School, Dr. Tosteson, decided that the matter was of such importance that a committee from within and outside Harvard University should be appointed. . . .

The committee questioned the reason for the delay between the initial event and response in May and June and the full-scale investigation in November. In retrospect, it is clear that Drs. Braunwald and Kloner felt in May and June that they were probably dealing with a single bizarre act by a young man who had performed exceptionally well previously. In the light of this consideration, the plan selected in June seems to be reasonable.

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The committee believes Dr. Darsee has been treated fairly. For several months he was dealt with in a manner consistent with his assertion that he was guilty of only one isolated act of data fabrication. The committee approves of the conscientious and responsible attitude of Drs. Braunwald and Kloner in this troublesome affair.

The committee suggests that there are two ways in which the institutional response could have been improved: First, a small committee of senior professors from within the University, but outside the involved department, should have been consulted immediately after the discovery in May. In any case, such a committee, be it standing or ad hoc, could have shared the burden with the Dean, the Chairman of the Department, and Laboratory Director and offered objective advice concerning the management of the problem. The second suggestion has to do with internal communications. In May a systematic search should have been conducted to identify all persons within the institution with whom Dr. Darsee had collaborated, and these persons should have been informed confidentially. . . .