

controlled by a licensee (deCODE) as well as by oversight and ethics committees and the DPC. Icelandic scientists choosing not to collaborate with deCODE will have the same or better access to patients and their medical records, not less. Those doing non-commercial research will have free access to the database. The law dictates that the data are to be stored so that they cannot be linked to individuals, so the database would not be a biobank as defined by the Swedes.

The article incorrectly gives the impression that UmanGenomics' use of its Medical Bank is going to be with the consent of the community, whereas deCODE's use of a database was opposed by the community. The Icelandic poll actually asked whether people were concerned about the protection of privacy in a centralized medical database, and (surprisingly) only 25% said yes. UmanGenomics was granted permission to use its Medical Bank by government committees and bureaucrats, which is not 'community consent'.

In stark contrast, deCODE obtained its licence to construct and run the health-care database through the democratic process. In 1997, the company suggested the database to the Ministry of Health, which then drafted a bill and placed it on its open website for comment. The government submitted the bill to the parliament (Althingi) in early 1998. Vigorous local debate lasted nine months and included hundreds of newspaper articles, radio and television programmes. Icelanders debated the database bill more than any other bill in the history of the republic. On the eve of the vote on the bill, a poll showed that 75% of the population supported it, and Althingi passed it last December by the same margin.

One premise in the News article is that, because government institutions own 51% of UmanGenomics, the proper use of its Medical Bank is assured. But governments have a bad record on violation of privacy. Further, the health-care authorities and the university that own most of UmanGenomics are mainly concerned with attending to diseases and health. Majority ownership of a genomics company that uses health-care information from clients as raw material may be seen as a serious conflict of interest.

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Striking the right note

Sir — About 50 years ago, a student was working in the library of the Natural History Museum in London one afternoon, and overheard two rather elderly gentlemen discussing *Nature* as they leafed through a

copy on display. "Do you still read this these days?" asked one. "Not really," replied the other. "I put my copy of *Nature* on the music-stand and play it."

Well he might, had he encountered one of those genome pull-outs you offer us these days, although he might not have understood the coloured musical notation (*Nature* 399, 323–329; 1999).

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Heisenberg, the bomb and the historical record

Sir — Mark Walker's review¹ of my book *Heisenberg and the Nazi Atomic Bomb Project* distorts the record in several ways.

Walker conceals from readers the fact that the book contains documented proof of his own past suppression of crucial evidence. This raises a question of reviewing ethics.

Walker hides the scientific issues relating to Werner Heisenberg's misunderstanding of the critical mass of an atomic bomb which he calculated to be *tons* of uranium-235. Heisenberg's mistake has been fully demonstrated by the publication by Sir Charles Frank in 1993 of the Farm Hall transcripts². Walker has already been reprimanded in an article in *Nature*³ for misleading readers, but he still does not see fit to mention the fundamental Farm Hall evidence in his review. In his own writings, Walker has all along suppressed Frank's explanation to him, in a taped interview of 1985, of the Heisenberg error.

Walker pretends that Heisenberg never seriously considered an exploding reactor-bomb. My book cites German reports analysing such a bomb, including two by a member of Heisenberg's team and a lengthy 1942 synoptic report, as well as Heisenberg's own comments, which show the idea to have been serious.

Any one of these three points should suffice to warn your readers against taking on trust any statement in Walker's review.

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Sir — What Walker somehow fails to mention in his dismissive review¹ is that Rose's book includes a devastating critique of Walker's own work on the subject. Re-examining the technical records on which Walker based the central thesis of his 1989 book⁴, Rose shows that Walker misrepresented crucial documents and suppressed essential evidence.

Ten years ago, Walker claimed to have

uncovered archival documents proving that German physicists had "performed the same sort of experiments, had made the same type of calculations, and had come to similar conclusions as the Allies — for example the estimate of explosive critical mass". As Rose demonstrates, this interpretation can be made to seem plausible only by the most convoluted and selective reading of the evidence.

A key 1942 German progress report, for example, cited by Walker to demonstrate that Heisenberg knew the critical mass of a uranium-235 bomb to be small, does contain a parenthetical speculation that with plutonium (then a hypothetical element) a small critical mass might obtain. What is described in the main text of the report, however, is the unworkable multi-ton reactor-bomb first intimated by Heisenberg in 1939. By citing only the parenthetical remark while suppressing the report's substance, Walker transforms contrary evidence into support for his thesis. Inconvenient technical reports by Heisenberg's research assistant Paul Müller elaborating the misguided reactor-bomb concept go unmentioned in Walker's account. An oral history interview with wartime scientific intelligence officer Sir Charles Frank forcefully describing Heisenberg's mistaken estimate of the critical mass is likewise suppressed — Walker cannot have been unaware of it since it was he who conducted the interview. Thus did Walker succeed in "misrepresenting not only the content of the document[s] but also the whole history of the German atomic project".

Reading Walker's review, one would never know any of this, or that such objections had ever been raised before^{3,5,6}. "Rose's book does not really have a conclusion," writes Walker, while suggesting that there is little in it that could possibly interest the readers of *Nature*. Having made the unfortunate decision to review a book that contains discrediting revelations about his own scholarship, Walker might have taken the opportunity to address the disturbing issues it raised. At the least, readers are entitled to a disclosure of self-interest. Instead, Walker chose the dismal principle he has followed before, *si incommoditas est, non est*. Whether a discordant fact, an inconvenient document, or a detailed study putting his claims to the test: if it doesn't fit, it just didn't happen.

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1. Walker, M. *Nature* 396, 427–428 (1998).
2. Frank, C. *Operation Epsilon* (Institute of Physics, Bristol, 1993).
3. Logan, J. L. & Serber, R. *Nature* 362, 117 (1993).
4. Walker, M. *German National Socialism and the Quest for Nuclear Power: 1939–49* (Cambridge Univ. Press, 1989).
5. Logan, J. *American Scientist* 84, 263–277 (1996).
6. Klotz, I. M. *Nature* 379, 410–412 (1996).