

tients to generate \$231 million. Because lovastatin is so popular with physicians, it is quite probable that in the United States alone at least this many patients take this medication regularly. Although Vagelos does not provide the percentage of the retail price returned to the pharmaceutical company, the payback period to his company for lovastatin is probably an incredibly short two or so years. Therefore, this drug, I would argue, is priced too high.

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Response: It is true that breakthrough medicines such as lovastatin return their costs of research and development (R&D) in a relatively short period of time. But breakthrough medicines must fund much of the ongoing research of an innovative pharmaceutical firm and sustain it through the so-called "dry" research periods.

Only three of ten marketed medicines return their average costs of R&D. The other seven medicines ride on the success of those three (1).

It took 23 years to recoup the R&D cost of the average new medicine introduced in

the 1970s. This means that a rare commercial success, such as lovastatin, makes possible the entire pharmaceutical research and development enterprise.

For example, if the economic performance of the anti-ulcer drug Tagamet (cimetidine) were removed from the performance of the 100 new medicines introduced in the 1970s, the remaining 99 would not even recover their total R&D costs.

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Surgeon-Warriors?

My recent anthropological researches on surgeons (1) illuminate the problem of the distinguished neurosurgeon Frances Conley, whose resignation from the Stanford Medical School was profiled on 14 June (News

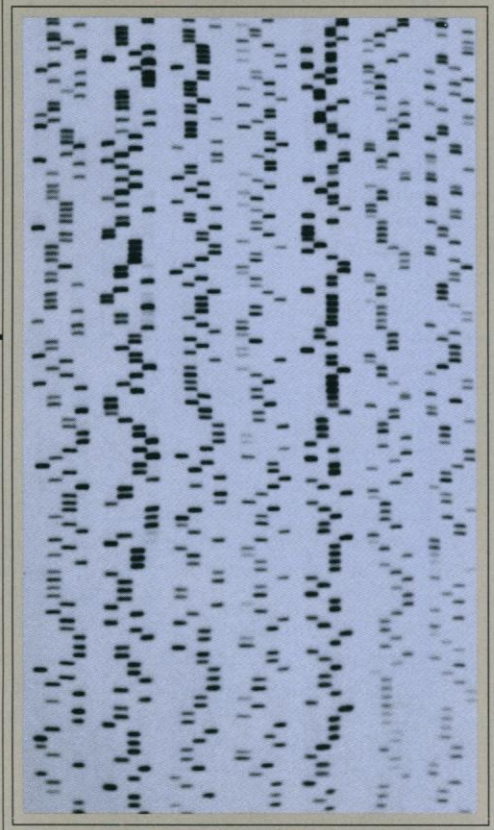
& Comment, p. 1484). Surgery is the most macho and masculine of the medical specialties, and male surgeons tend to view themselves as engaged in battle with disease and death (2). A significant proportion of them—but by no means all!—therefore believe themselves entitled to the perquisites of warriors, including admiring and subservient women, and they have no space in their lives for women as peers and colleagues.

Recently I extended my researches to women surgeons, a group growing in number. I have observed that some have had to cope with problems similar to those of Conley. What is significant and hopeful, however, is the proportion of them who, nevertheless, maintain the highest technical standards of performance yet combine these with compassion and an ability to engage in human dialogue with their patients.

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