

By MELODY PETERSEN

In the late 1970's, Dr. Sheldon Krimsky was a young assistant professor at Tufts — politically naive, by his own admission — when he was asked to lead a team of students investigating whether a chemical company had polluted water wells in a nearby town.

When the company, W. R. Grace, learned that Dr. Krimsky and his students would soon be releasing a report that it would not like, a top executive visited the president of the university to ask him to stop its publication, Dr. Krimsky says in a new book. (The company says it cannot offer a perspective on the account because it was so long ago.)

The president said no. But the possibility that such an effort could have succeeded disturbed Dr. Krimsky deeply. What if the company had given large financial grants to Tufts or had selected a faculty member to sit on its board? Would he, an untenured professor, still have been allowed to publish the report?

The experience prompted Dr. Krimsky to begin studying the growing number of financial ties between universities and their scientists and corporations.

Today, biotechnology and pharmaceutical companies regularly give universities multimillion-dollar grants.

In medical schools, dozens of faculty members may be earning significant sums as corporate consultants. At the same time, universities and their professors are plunging into the business world themselves, creating companies to sell products discovered in academic laboratories.

In the book, "Science in the Private Interest" (Rowman & Littlefield), Dr. Krimsky documents the growing entanglement between commerce and academic science. He argues that the lure of profits is transforming universities so that they are no longer independent, disinterested centers of learning that the public has long depended on.

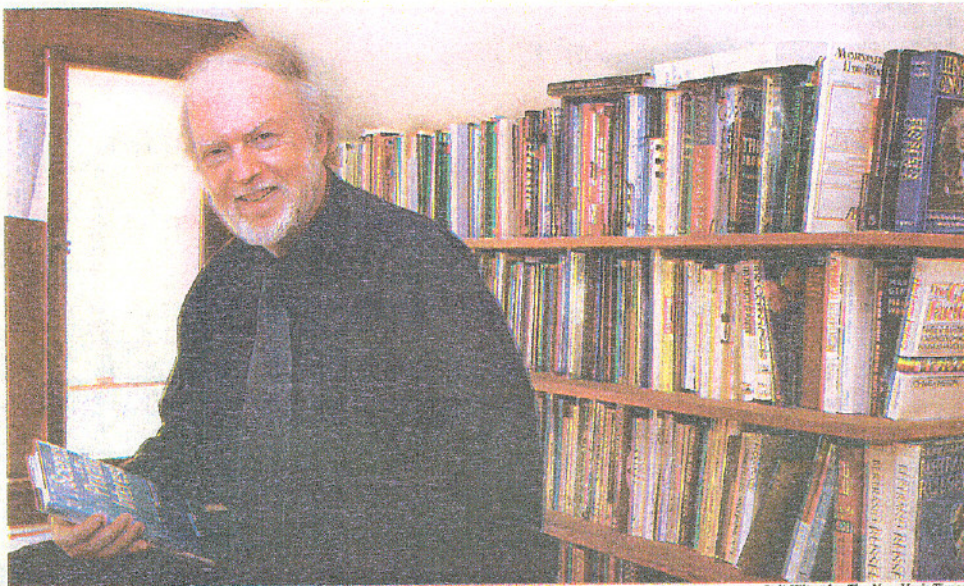
The subject is not new, but it is gaining increased attention. Dr. Derek Bok, the former president of Harvard, also tackles the subject in his recent book, "Universities in the Marketplace: The Commercialization of Higher Education" (Princeton University Press).

Dr. Krimsky argues that the trend has accelerated in the last 25 years as universities look to corporations to fill holes in their budgets and with new federal incentives for university-industry partnerships.

**Q.** You write that in the 1940's and 50's some scientists opposed patent-

## A CONVERSATION WITH SHELDON KRIMSKY

# Uncoupling Campus and Company



Jodi Hilton for The New York Times

In a new book, Dr. Sheldon Krimsky, a professor at Tufts, examines the private sector's influence on science.

ing their medical discoveries. You note that neither Jonas Salk nor the March of Dimes, which supported his work, decided to patent or receive royalties from the discovery of a polio vaccine. What has changed since then?

**A.** When Jonas Salk was questioned about patenting the vaccine, he replied, "Could you patent the sun?"

### As business nurtures the ivied halls, some fear an overgrowth.

For him, he was doing something in the public interest. But attitudes changed in 1980. The Supreme Court ruled that patents could be issued on living things *sui generis*, independent of a product or process of development. That meant that you could get a patent for a discovery of a virus or by altering a plant or by finding a gene and isolating it. Then a gold rush mentality began.

Universities, seeking new sources

of revenue, began turning themselves into engines for economic development. They began establishing intellectual property offices and provided incentives and rewards for faculty who patented their discoveries. In 1965, universities were awarded 95 patents. In 2000, universities were awarded 3,200.

**Q.** How have the increasing ties between companies and academic scientists affected the practice of medicine?

**A.** Increasingly, we are learning that the privatization of research affects both the way that studies are done, as well as the outcome, which appears to have a greater tendency than similar studies by nonprofit sponsors to favor the financial interests of their sponsors. I call this the funding effect in science.

**Q.** Are ties between researchers and industry affecting patients?

**A.** If studies are heavily funded by companies that control the data and there is a biasing effect, drugs can get on the market that should not be on the market. There is more than enough documentation to indicate that financial interests have brought dangerous drugs to the marketplace.

**Q.** In what scientific areas, besides private medicine, do you see the effects of private financial interests?

**A.** We can find the commercialization of research in almost any area where there are high financial stakes in the outcome. Historically, this has been true in tobacco research. For decades, companies funded research to give them what they wanted the public to hear, namely that tobacco was not dangerous.

More generally, we see commercial effects in the evaluation of toxic chemicals such as lead, pesticides, dioxin. Also, the commercial interests are manifest in atmospheric science related to the global warming controversy, biotechnology and even in criminology when for-profit prisons were first introduced.

**Q.** With the growing mix between commerce and science, how have scientists changed their definition of a colleague who should be admired?

**A.** It was once considered unseemly for a biologist to be thinking about some kind of commercial enterprise while at the same time doing basic research. The two didn't seem to mix. But as the leading figures of the field of biology began intensively finding commercial outlets and get-

rich-quick schemes, they helped to change the ethos of the field.

Now it is the multivested scientists who have the prestige. You can publish in the good journals, and you can start a company. Then you have reached your fulfillment as an academic scientist. The traditional negative attitudes toward commercialization disappeared over a fairly short period of time.

**Q.** With more scientists focused on research areas where there are commercial opportunities, what scientific areas are languishing?

**A.** Areas that struggle to get funds, the ones that don't have this potential for great commercial value, are those that pursue the causes of disease. For example, research that seeks to find the environmental, social or lifestyle factors responsible for illness or reduced quality of life.

Public health research has saved countless lives when scientists discovered that lead and mercury destroyed the brains of workers; that vinyl chloride and benzene produced cancer, that fluorocarbons created an ozone hole in the atmosphere that lets in dangerous amounts of ultraviolet light that inflicts skin cancer. But the solutions to those problems did not make scientists or companies wealthy.

**Q.** How has the commercialization of science affected the makeup of federal advisory boards that recommend whether experimental drugs should be approved and provide other advice?

**A.** There are two rules that guide federal advisory committees: Rule No. 1 is that no scientist with a substantial conflict of interest should be permitted to serve on an advisory committee. Rule No. 2 is that Rule No. 1 can be waived. And the number of waivers has been extraordinary.

**Q.** Why should the public worry about the entanglement of university science with entrepreneurship?

**A.** We are exposed to new drugs, new chemicals, new technology, new foods. Sometimes these products are introduced into the market without adequate testing. They are withdrawn years later, after there are casualties. Many times the scientists who place their testimony behind a product have an undisclosed financial interest in its success.

We need to know where to place our trust. Do we want to trust a physician who makes profit every time we take a pill because he is a founder of the company that manufactures it? That decision should be made with informed consent of the patient. Medical research and commerce must be separated.