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LETTERS

Hayflick's Tragedy

I read Nicholas Wade's article "Hayflick's tragedy: The rise and fall of a human cell line" (News and Comment, 9 April, p. 125) with great astonishment. The "fall" of this particular cell line was predictable, simply because of Hayflick's most important discovery in aging research—that cell cultures, which preserve all the specificity of normal human cells, age and die. Hayflick's tragedy is not related to the fact that he did not preserve unlimited supplies of early passages; 15 years ago, when in vitro aging was discovered in this cell culture, nobody could predict how many ampules might be needed in the future. One strain would probably be finished sooner or later, but other, similar strains could be developed and are indeed already available. It was the discovery, not the particular cells, which was important. Nor is the tragedy in the fact that some samples happen to be unsterile (one might expect this, when storage is made after several passages), when the question is really about pioneering work. Nor is the tragedy in the commercial side of the problem, or in the dispute about the ownership of samples; they actually belong to science, like the double helix of DNA or the genetic code. Few people are more interested in the practical use of new methods and better qualified in the use of the samples than Hayflick himself.

The tragedy, as I see it, lies in the surprisingly tendentious approach of *Science* and some other publications about this case. Wade's article describes the conflict between National Institutes of Health accountant James W. Schriver and a prominent scientist concerning research work. Much more publicity is given to the accountant's point of view than to the scientist's, and the scientist himself is not given a real chance to explain his own version of the events. It is a tragedy that an outstanding scientist can be forced to resign his professorship at a university without discussion of his case by his colleagues. Wade's picture of the events, like other press accounts of this conflict, tries to raise doubts about Hayflick's moral and ethical behavior. I think it relevant for me to acknowledge that, during my long struggle for human rights and scientific freedom in the Soviet Union, I was supported and helped by many colleagues and friends abroad. This help saved my freedom and probably my life, first when I was forcibly put into a mental hospital in 1970 and later when I was arrested in 1972 in Kiev

during the 9th International Gerontological Congress. But nobody helped me more than Leonard Hayflick, whom I had known through correspondence since 1963 and first met in Moscow in 1966. When I was dismissed from my position as head of the Laboratory of Molecular Radiobiology in Obninsk in 1969 (after my book about T. D. Ly-senko was published in the United States), Hayflick offered me a position as senior scientist in his department at Stanford University. In 1972 I arrived in Kiev to participate in the Gerontological Congress and to give a lecture, as announced in the program of the International Association of Gerontology. I was unexpectedly arrested on the street near the Congress Hall on the opening day. It was Leonard Hayflick who immediately organized a strong lobby group and made an uncompromising demand—either I was to be released immediately and harassment stopped, or most of the Western gerontologists would not participate in the Congress and would leave the Soviet Union the next day. Hayflick's conditions were reluctantly accepted by Soviet officials, who faced him in person at an unprecedented "closed" meeting held in the hotel room of the president of the International Association of Gerontology, N. Shock, when they realized that Hayflick and his group really meant business. It was a unique case of Russian scientific officials making a recorded concession after a serious confrontation. If other foreign scientists were to act similarly on behalf of Soviet or other colleagues who are in trouble, the scientific community would be much better protected against bureaucratic or political intervention.

After the Kiev episode and the official Soviet promise to stop harassment (to enable the Congress to continue), my research was quietly resumed and I was even permitted in 1973 to accept an invitation for a 1-year official visit to the National Institute for Medical Research in Britain. After 6 months in Britain I was unexpectedly deprived of my citizenship, and the Soviet bureaucracy gained revenge for my dissent. When I found myself stateless and jobless in Britain in 1973, Leonard Hayflick was again the first who offered me a helping hand and invited me to take an official position in his laboratory. However, my British colleagues also offered me a position and let me continue my research work uninterrupted. If I had not been able to get a position in Britain, I would certainly have accepted Hayflick's invitation and started aging research with him. And I would certainly have resigned after my

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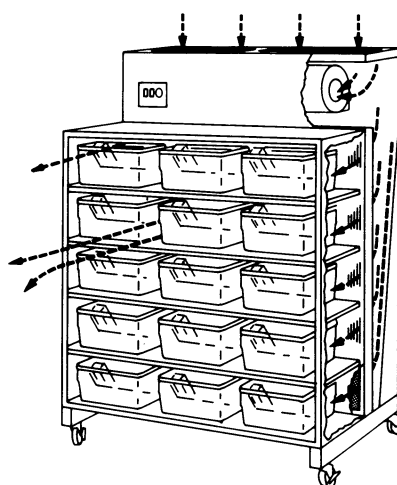


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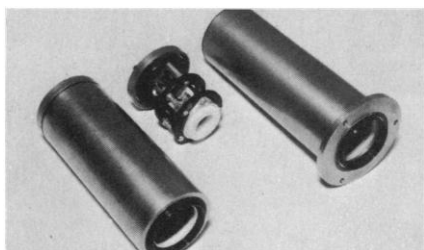


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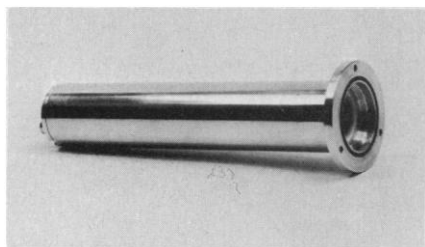


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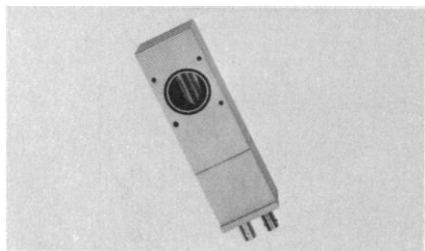
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friend to express my protest at the injustice and harassment he is now suffering, which is of a much more sophisticated form than I experienced.

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Project Seafarer

We on the National Research Council committee studying the biological and ecological effects of the extremely low frequency radiation associated with the Navy's Project Seafarer are very much aware of public concern over Seafarer's proposed construction.

We are interested in gathering and examining all relevant scientific data and ask that such materials or references be submitted to us in writing as soon as possible.

J. WOODLAND HASTINGS

*Committee on Biosphere Effects of
Extremely Low Frequency Radiation,
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JOHN A. GRUNAU

JOHN W. DRAKE

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References

1. W. F. Hemmens, *Biochim. Biophys. Acta* **68**, 284 (1963); R. Shapiro and C. N. Gordon, *Biochem. Biophys. Res. Commun.* **17**, 160 (1964).
2. Private communications from the Nutritional Biochemicals Company (now ICN Pharmaceuticals, Inc.) and the Schwarz/Mann Division of Becton, Dickinson and Company.

Health Care: Service or Business?

Philip H. Abelson's editorial "Cost-effective health care" (14 May, p. 619) contains much wisdom. A mysterious facet of human nature is the inability to learn from experience. The greater the separation between "providers" and "utilizers" of a service, the more expensive and less appropriate the service will be. Every intervening step reduces the accountability of the server and the ability of the served to obtain what they want. A major effort should be made to develop a system of adequate medical care for all coupled with an awareness that care does in fact cost money, and that it is, therefore, in the patient's interest to utilize the least expensive service that is satisfactory.

It is clearly cheaper and more efficient to add oil to an automobile's engine than to keep putting in new engines when the old one runs dry. We don't seem to have the same understanding about the human machine. Those of us with responsibility for health care must try to persuade individuals to utilize that which is already known regarding health maintenance. Such an effort would be both cheap and effective.

One matter is not touched on in Abelson's editorial. This is the effect on the medical care system of being transformed into a "business operation." Properly, the goal of medical practice is the provision of a service; the result, due to the gratitude of those served, is the remuneration of the individual providing the service. The introduction of business techniques tends to reverse this situation; the goal becomes the production of a profit. This methodology, in which strikes and boycotts are used as negotiation devices, is antithetical to the essence of medical care, which is a completely voluntary contract between two individuals. The transformation of the medical care system by the methodology of business is leading to the demise of medicine as a healing art.

We have several options regarding health care. We can embalm ourselves in our unrealistic system that treats obesity with pills, employs pills as contraceptives, and flattens ears in the name of psychological support. Or we can realize that how we live largely determines what we become and how we shall die. I wonder if the American people are willing to take the economic and psychological risks of the latter choice.

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