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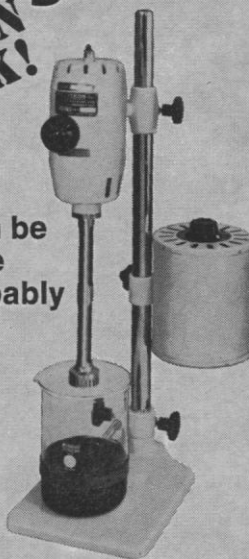
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In fact, in many cases, the men have spent a whole summer whipping themselves into shape only to find that their chances of beating a woman were no more than 50-50 over the greater distances.

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References

1. J. H. Wilmore, Ed., *Exercise and Sports Sciences Reviews* (Academic Press, New York, 1973), vol. 1.
2. C. Wennerberg, *Wind, Waves, and Sunburn* (Barnes, Cranbury, N.J., 1973).

Interaction of Sperm with Somatic Cells

In their report (1 Mar., p. 857) on the novelty and potential value of the uptake of spermatozoa by somatic cells, Bendich, Borenfreund, and Sternberg fail to mention that the subject is at least as old as the observations of Kohlbrugge (1) and that almost all their methods were put to the same use and achieved the same results in Sydney, Australia, a decade ago (2). We were similarly attracted to the idea of the male gamete's being a vector of nucleic acid, particularly as a potential carcinogen in human cervical cancer (3). The epidemiological literature is replete with suggestions that the disease is truly venereal, and demonstrable intimacy of the two nucleic acids—those of sperm head and cervical epithelial cell—following coitus was the subject of much thought and model building by our group (4). Like our colleagues in the field of viral oncogenesis, we seized industriously upon the concept of an admixture of the two nucleic acids being potentially somehow carcinogenic. The concept, however, has not been as productive as we hoped. We now see the importance of the sperm head as a vector of arginine-rich histones acting not so much deep within the target cell, as the authors' electron micrographs and autoradiographs so dramatically show, but quite superficially at its surface and quite early during the first moments of contact (5).

The Sydney studies have been the subject of three books, review articles, and numerous papers published in many countries, including the United States and the United Kingdom. Is it possible, in an age of some of the most sophisticated communications mechanisms in the history of mankind, from satellites to computer-aided bibli-

ographies, that the noise level generated by an avalanche of publications sets the chances of contact between scientists in related fields at a level less effective than that which obtained in Medieval times?

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References

1. J. H. E. Kohlbrugge, *Arch. Entwicklungsmech. Org.* 35, 165 (1912).
2. B. L. Reid, *Lancet* 1964-I, 21 (1964).
3. M. Coppleson and B. L. Reid, *Precinical Carcinoma of the Cervix Uteri* (Pergamon, Oxford, England, 1967).
4. ———, *Obstet. Gynecol.* 32, 432 (1968); B. L. Reid and M. Coppleson, in *Scientific Basis of Obstetrics and Gynaecology*, R. Maconald, Ed. (Churchill, Oxford, England, 1971).
5. B. L. Reid, *Biosystems*, in press.

We regret we did not cite the earlier work of our colleagues in the field of gynecology mentioned above; we disagree with their contention that the methods were put to the same use and achieved the same results. Our study dealt with nonphagocytic spermatozoal transfer of genetic information to cultured somatic cells. Coppleson and Reid regarded sperm as potential mutagens and presented experimental data which bear on this. They have speculated that phagocytic uptake of sperm or sperm components by immature squamous metaplastic cells in the human cervix might lead to carcinoma after a long latent period. Although they do not now regard their concept as productive as they had hoped, we believe this latter possibility to have great merit. The astonishingly high incidence of prostatic carcinoma (1), the anatomical possibility that sperm can play a role in this disease also, and the current difficulty obtaining direct experimental evidence on various stages of this lengthy process make it important to pursue and support systematic fundamental investigations which can be rigorously evaluated at each step.

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References

1. F. K. Mostofi and J. E. Leestma, in *Pathology*, W. A. D. Anderson, Ed. (Mosby, St. Louis, 1971), p. 828. Carcinoma of the prostate is seen in 26 to 37 percent of men at autopsy performed for other reasons and this rises to 40 to 80 percent by the ninth decade.