



THE ROCKEFELLER UNIVERSITY

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August 4, 1980

JOSHUA LEDERBERG

PRESIDENT

Mr. James Ertel
Editor-in-Chief
Encyclopaedia Britannica Yearbooks
425 North Michigan Avenue
Chicago, Illinois 60611

Dear Mr. Ertel:

You wrote me some time ago asking for suggestions for the forthcoming 1981 Yearbook. I'm sorry to have sat on this for so long but in fact I have been accumulating a few ideas that I would like to share with you:

A couple of these are self-evidently explained in the clippings that I enclose about the problem of patenting living organisms and about the antiquity of the first identifiable terrestrial organisms.

A story connection with the latter is Karl Woese's idea that the archebacteria may reflect a dramatically different pattern of living organization separate from ordinary bacteria and from higher forms.

I'm enclosing another clipping about Bill Trager who works here at the Rockefeller: his discovery of a method to cultivate the malaria parasite in vitro really is an enormously important breakthrough.

Then I am enclosing two of my own articles: one on digital communications and the other on comparative toxicology that I believe are in the appropriate spirit of interest for the Yearbooks. I'm not suggesting that I be commissioned to write the articles!

Jonathan Cole's book "Fair Science" touches an issue of very wide interest and importance. I might suggest that you approach him to do a piece together with Harriet Zuckerman, both at the Sociology Department at Columbia. They're certainly to do the most insightful and reliable work in this field. I think that one of the most important discoveries

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of the last few years is Y. W. Kan's work on the molecular biology of sickle cell disease. This not only establishes a way to do prenatal diagnosis but is certainly the base from which we will do the comprehensive mapping of the entire human genome. He is at the University of California, San Francisco.

If you haven't already looked at it, I think a piece on the functions of the "P-450 oxidases" of the liver would be fascinating. This is the enzyme system which is responsible for detoxification of a wide variety of environmental substances. However the body often makes a mistake and the enzyme causes the accumulation of partially oxidized intermediates which are probably responsible for most of the difficulties that we have with environmental carcinogens. Al Conney who now works at Hoffmann-La Roche would be the plausible person to write on this subject.

Again if you haven't broached them in detail recently the work that Brown and Goldstein (Dallas) have done on the biology of atherosclerosis is an enormous leap forward towards the understanding and eventual control of our major killer disease. It is certainly of Nobel-worthy dimensions!

Yours sincerely,

Joshua Lederberg

(Dictated by J. Lederberg;
sent in his absence).



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See Encyclopedia Britannica file.