

grotesquely distorted pieces of literature as Marx's *Das Kapital* and Hitler's *Mein Kampf*, can only have originated from such a source.

Yours faithfully,

ALAN RADCLIFFE-SMITH

13 Argyle Avenue,
Hounslow,
Middlesex

β -Carotene

SIR,—The following comments may be of some interest with respect to the letter of Drs Johnson and Fusaro.

While it is true that Kesten (not Keston) was the first to describe the use of β -carotene cream as a photoprotective agent, Mathews-Roth and associates were the first to show unambiguously in a number of patients and animals the effectiveness of internally administered β -carotene¹. It should be recognized that there is a marked difference between topically and internally administered β -carotene. As Kesten showed in a single patient, topically applied β -carotene provides some protection against photosensitivity. This protection is due to the absorption of part of the incident visible light by the carotene, and hence topically applied black treacle would probably have a similar effect. When β -carotene is taken internally, its protective effect is enhanced and it seems likely that the carotene is acting not merely as a light shield but as an *in vivo* quencher of singlet oxygen. Although Kesten did administer β -carotene orally to one photosensitive patient, she did not report any definite conclusions regarding the effectiveness of the treatment.

Yours faithfully,

ANTONY F. McDONAGH

School of Medicine,
Department of Medicine,
University of California,
San Francisco

¹ Mathews-Roth, M. M., Pathak, M. A., Fitzpatrick, T. B., Harber, L. C., and Kass, E. H., *Trans. Assoc. Amer. Phys.*, **83**, 176 (1970).

Congress Caveat

SIR,—We would like to reply to the letter (*Nature*, **240**, 428; 1972) about the prices of some of the excursions arranged for participants in the ninth International Congress of Biochemistry. When preparing for the Congress, the organizing committee asked a well-known Swedish travel agency, RESO, to arrange a number of visits and excursions in connexion with the Congress. The tours were to be arranged at RESO's financial risk and on the condition that they could not be cancelled on the basis of a low number of participants. The negotiations with RESO resulted in plans

for those visits and excursions that are described in circular 2 of the Congress. The arrangement of these tours constitutes no source of income for the Congress but should be considered only as a service to the Congress members. The tours specially arranged for participants of the Congress provide good opportunities for informal discussions and exchange of ideas, in combination with a comfortable way of doing some sightseeing. There is no doubt that the sightseeing by itself can, in many cases, be done at a cheaper price and there are, of course ample possibilities for every visitor to arrange his own sightseeing. However, when it comes to regular sightseeing tours comparable with the Congress tours in routes, transport facilities, meals and refreshments, guide services and so on, the prices are comparable to or higher than those offered by RESO for the Congress tours.

In response to our specific question regarding the price (75 Sw. kr) of the Congress excursion through the Stockholm archipelago, we have received the following information from RESO:

The participants will sail from Stockholm to Sandhamn and back to Stavsån by a rented ship. In order to save time, the trip from Stavsån back to Stockholm will be made by rented buses. The regular voyages from Stockholm to Sandhamn and back (entirely by ship, return price 24 Sw. kr) are subsidized by the City of Stockholm, not so the Congress tour. The latter, moreover, includes a first class lunch at Sandhamn, music and coffee on board, and the services of guides. RESO will be glad to answer further questions regarding this and other Congress tours.

It is our sincere hope that all participants of the Congress will find their stay in Stockholm pleasant and profitable, and we shall do our utmost to this end.

Yours faithfully,

LARS ERNSTER

9th International Congress of
Biochemistry,
c/o Svenska Kemistsamfundet,
Wenner-Gren Center, 6 tr.,
S-113 46 Stockholm

Pulsar Disclaimer

SIR,—The statement made by the authors at the end of "Periodicities in Seismic Response caused by Pulsar CP1133" by Dror Sadeh and Meir Meidav (*Nature*, **240**, 136; 1972), reading "We thank Professor C. L. Pekeris and the Applied Mathematics Department at the Weizmann Institute . . ." should not be construed as implying that I, or the Department of Applied Mathematics of the Weizmann Institute, are in any way responsible for the

views expressed by the authors in this paper.

Yours faithfully,

C. L. PEKERIS

Department of Applied Mathematics,
The Weizmann Institute of Science,
Rehovot

Cancer Chemotherapy

SIR,—I wish to present a strategy for cancer chemotherapy which, to my knowledge, has not been explicitly stated in print before.

Consider two classes of substances: class A substances kill only dividing cells, class B substances reversibly inhibit the division of normal cells but do not inhibit the division of malignant cells. The strategy is to first apply a class B substance; when it has taken effect, a class A substance is applied. Both are removed before unacceptable damage is done.

The key advantageous feature of this strategy lies in the protective effect of the class B substances. This will allow larger doses of more potent class A substances to be used more frequently and for longer periods.

Class A substances are well known among current chemotherapeutic agents. Do class B substances exist?

Yours faithfully,

DAVID ZIPSER

Cold Spring Harbor Laboratory,
Cold Spring Harbor, New York 11724

Announcements

Miscellaneous

THE Soviet State Prizes for science for 1972 were awarded as follows:

1. To Academician Boris Ivanovich Stepanov, Director of the Institute of Physics of the Byelorussian Academy of Sciences, Anatolii Nikolaevich Rubinov and Vasilii Andreevich Mostovnikov for work carried out in the Institute on the optical generation of complex organic compounds in solutions and the development of a new type of laser in connexion with this work.

2. To Dr Anatolii Filippovich Tulinov, Yurii Vladimirovich Melikov, Vatslavas Stanislavovich Kulikauskas, Grigori Arkad'evich Iferov and Grigori Pavlovich Pokhil of Moscow State University, Arij Aleksandrovich Puzanov of the Ural Polytechnic Institute, Bela Gabdulgaliyeva Akhmetova of the Kazakh State University, and Sarkis Arshavirovich Karamyan of the Joint Institute of Nuclear Research for their discovery and investigation of the shadow effect in nuclear reactions on monocrystals.