Science

A Science Service Publication Vol. 106/November 9, 1974/No. 19 Incorporating Science News Letter

Of the Week

292
292
293
293
294
294
295
295
296
296

Articles

Letters

Behavior

Inside FermiLab

Letters: Element 106

FermiLab's prairie project	299
epartments	
Books	290

301

298

291

302

COVER: A garden grows in the 16-story atrium of the high-rise that houses the administration of the Fermi National Accelerator Laboratory, It's a long way from the first cyclotron. See p. 298. (Photo: FermiLab)

Publisher E. G. Sherburne Jr. Kendrick Frazier Senior Editor and

Physical Sciences Dietrick E. Thomsen Senior Editor and

Behavioral Sciences Robert J. Trotter Biological Sciences Joan Arehart-Treichel Science and Society John H. Douglas **Space Sciences** Jonathan Eberhart Staff Reporter Janet H. Weinberg Writer/Copy Editor Lisa J. Shawver Art Director Dale Appleman Assistant to the Editor Esther Gilgoff **Books** Margit Friedrich

Advertising Scherago Associates, Inc. 11 W. 42nd St. New York, N.Y. 10036 Fred W. Dieffenbach Sales Director

Copyright © 1974 by Science Service, Inc., 1719 N St., N.W., Washington, D.C. 20036. Republication of any portion of SCIENCE NEWS is strictly prohibited.

Subscription Department 231 West Center Street Marion, Ohio 43302

Marion, Ohio 43302

Subscription rate: 1 yr., \$10; 2 yrs., \$18; 3 yrs., \$25. (Add \$2 a year for Canada and Mexico, \$3 for all other countries.) Change of address: Four to six weeks' notice is required. Please state exactly how magazine is to be addressed. Include zip code.

Printed in U.S.A. Second class postage paid at Washington, D.C. Established as Science News Letter ® in mimeograph form March 13, 1922. Title registered as trademark U.S. and Canadian Patent Offices.

Title registered as dian Patent Offices.

Published every Saturday by SCIENCE SER-VICE, Inc., 1719 N St., N.W., Washington, D.C. 20036. (202-785-2255). Cable SCIENSERV.

To the Editor

Not room for expansion

In his letter to the editor (SN: 10/12/ 74, p. 227) Mr. Feinstein demonstrated his ignorance in so many areas of the human population problem that it is impossible to comment on all of them in a short letter. However, three points especially deserve comment. First, vast areas of the earth are uninhabited for the very good reason that the resources needed by humans do not exist there (i.e., suitable soil conditions for crops, available water, etc.).

Second, technological developments have never kept up with the growth of the human population. To expect that technology will miraculously catch up is an exercise in self-delusion.

Third, the adverse psychological impact of crowded conditions, such as those envisioned by Mr. Feinstein, has been extensively publicized in many biological and psychological journals.

The earth, as is the case with smaller ecosystems, has a limited carrying capacity. We are approaching that limit more rapidly than many of us will admit.

Robert R. Hollenbeck, Ph.D. David R. Voth, Ph.D. Donald K. Alford, Ph.D. Carol S. Steele Robert R. Cohen, Ph.D. John C. Krenetsky, Ph.D. Jean A. Bowles, Ph.D. David H. Marsh, Ph.D. George Becker Irene Wesley, Ph.D. Department of Biology Faculty Members Metropolitan State College Denver, Colo.

Mr. Feinstein's letter concerning human population density and food sources is a put on. Right? Farm in buildings hundreds of miles long and many miles wide? I hope that his belief is not too widespread. It leads to complacency and false security about population density and environmental problems. Engineering knowhow will overcome natural biological laws! I think Mr. Feinstein has been living in Brooklyn too long.

Donald L. Inman, Ph.D. Office of Environmental Review Department of Natural Resources Lansing, Mich.

'Sinister' observations

Because of my left-handed or mixedhanded tendencies, R. J. Trotter's article "Sinister Psychology" (SN: 10/5/74, p. 220) attracted me more than casually. I have been watching people's character-

istics (particularly left-handed ones) for a number of years and would like to add a few observations. These are: A much larger number of practicing left-handed persons less than 30 years of age than older ones (probably a more friendly society toward sinistrals), a significantly greater number of college graduates in science and mathematics are left-handed compared to equivalent age groups of noncollege persons and, last but not least, seemingly left or mixed-handed persons appear to have many more hobbies (and sometimes more distractions) than righthanded persons-all age groups considered.

M. L. Moberg, President Analytical Research Laboratories, Inc. Monrovia, Calif.

Significant figures

Even at this late date, I am still moved to comment on the article "QED" (SN: 7/27/74, p. 60). It gives predicted and experimental values for the anomalous part of the magnetic moment of the electron, giving "agreement to the tenth significant figure, a truly fantastic agreement." And it would be. Unfortunately the values he gives agree only to the sixth figure, albeit the tenth decimal place reported. (Even then, they stop agreeing at the eighth decimal: 0.0011596519 vs 0.0011596567). Put more simply, the numbers are 1.15965 \times 10⁻³ plus or minus 1 in the last figure shown. Please, we have enough trouble teaching beginning chemistry students "significant figures" without such a prestigious and excellent magazine as SCIENCE News compounding the confusion!

M. A. Merrill Professor of Chemistry Cerritos College Norwalk, Calif.

Viral transformations

I think the article describing our work on virus transformation (SN: 10/19/74, p. 248) is very well done except for one point which could be a major issue. This concerns the second sentence regarding the gangliosides in cancer cells. This change occurs if the tumor is caused by an oncogenic virus. There are many spontaneous tumors where this change is not seen. This may seem to be a minor point but there is a lot of interest in this area and I would not like to mislead anyone regarding our findings, which are restricted to viral transformation of cells.

Roscoe O. Brady, M.D., Chief Developmental & Metabolic Neurology National Institute of Neurological Diseases and Stroke Bethesda, Md.

More letters appear on page 302

SCIENCE SERVICE

Institution for the Popularization of Science founded 1921; a nonprofit corporation

Institution for the Popularization of Science founded 1921; a nonprofit corporation

Board of Trustees—Nominated by the AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF

SCIENCE: Deborah P. Wolfe, Queens College of City University of New York; Bowen C. Dees,

The Franklin Institute; Athelstan Spilhaus, National Oceanic and Atmospheric Administration.

Nominated by the NATIONAL ACADEMY OF SCIENCES: Gerald F. Tape, Associated Universities;

Allen V. Astin, National Academy of Sciences; Glenn T. Seaborg (President), University of

California, Berkeley, Nominated by the NATIONAL RESEARCH COUNCIL: Gerald Holton, Harvard

University; Joseph W. Berg Jr., National Research Council; Aaron Rosenthal, National Academy

of Sciences. Nominated by the JOURNALISTIC PROFESSION: Norman Cousins, "World"; Julius

Duscha, Washington Journalism Center; O. W. Riegel (Secretary), Washington and Lee University.

Nominated by E. W. SCRIPPS TRUST: Milton Harris (Treasurer), Washington, D.C.; Edward W.

Scripps II (Vice President and Chairman of the Executive Committee), Edward W. Scripps Trust;

John Troan, Pittsburgh Press.

Director: E. G. Sherburne Jr.: Assistant Director: Dorothy Schriver; Business Manager: Donald R.

Director: E. G. Sherburne Jr.; Assistant Director: Dorothy Schriver; Business Manager: Donald R. Harless; Things of Science: Ruby Yoshioka.

November 9, 1974