

a few remarks which could not be presented in a brief report.

It is well established that serum cholesterol and serum phospholipid levels are sex- and age-dependent variables. From previous studies [Adlersberg *et al.*, *J. Am. Med. Assoc.* **162**, 619 (1956)], it is known that in males there occurs a significant increase of total cholesterol and phospholipids in serum from age 20 to age 33 years. In females, however, these levels do not change significantly from age 2 to 32 years, but a significant rate of increase occurs from age 33 to 58. Although the ages of the subjects ranged from 18 to 55 years in our sample, the majority fell into the third and early fourth decades. The age differences between the two groups compared were small, for example, in monozygotic male twins, those living together had a mean age of 25.04 and those living apart, of 28.20, a difference of only three years. The greatest age difference was encountered in female dizygotic twins; those living together had a mean age of 20.56 and those living apart, of 33.23. In these age periods, serum lipids are not an age-conditioned variable.

We sympathize with the difficulties apparently experienced by White and his coworkers in obtaining twins living apart for simultaneous study. Because of the extreme importance of this precaution, the simultaneous physical and chemical examination of the two members of a twin pair was made a *conditio sine qua non* in our study. Rigid application of this principle often required many months of negotiation with the twin subjects. In addition, all specimens obtained were labeled by number, and their identity remained unknown to the laboratory personnel. Thus, any extrinsic effects upon intrapair variances were reduced to the practicable minimum.

In any epidemiologic study of man, sampling poses one of the most difficult problems. In the sampling of adult twins in good general health, the incidence of sex and zygosity at birth is of limited value. Greulich concluded, as early as 1934, that the number of twins in the general adult population was approximately 50 percent of the incidence at birth [*Am. J. Phys. Anthropol.* **19**, 391 (1934)]. It is now well established that the sex and zygosity differential of twins in adulthood is subject during life to marked modifications. (The sampling of the twin population under study is discussed in detail in a monograph by Osborne and DeGeorge, now in preparation).

We fully agree with White *et al.* on the method of analysis to be used, and what they suggest had, in fact, been done. In our study the average lipid levels in the various groups were calculated, compared, and found not to differ significantly. Interpair variances were calculated separately and found not to

differ significantly, and subsequently they were pooled.

The method of study, as well as the evaluation of the data, is discussed in greater detail in our paper entitled "Serum lipids, heredity, and environment: A study of adult twins [*Am. J. Med.*, in press].

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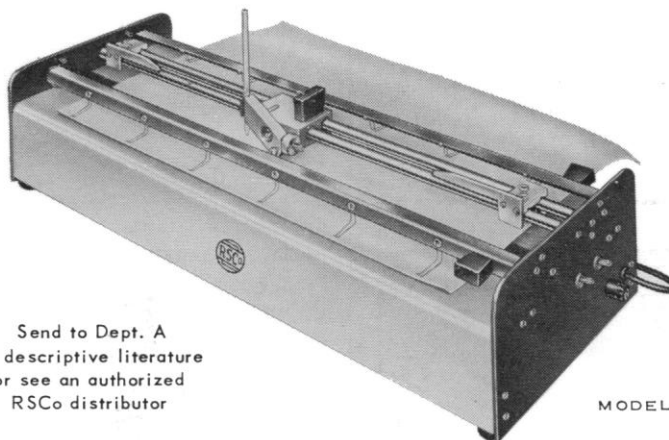
Meetings

American Council on Education

The response of education in the United States to the sputniks and the challenges of the space age will be discussed by Arthur S. Flemming, Secretary of Health, Education, and Welfare, and other national leaders in education at the 41st annual meeting of the American Council on Education in Chicago, 9-10 October. The general theme, "Education Accepts New Challenges," will

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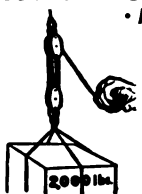
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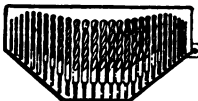
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be developed in the opening session at the Palmer House by Arthur S. Adams, president of the council, speaking on "A Clinical Look at the Controversy over Education," and by Virgil M. Hancher, president of the State University of Iowa, on "The New Challenges and How To Meet Them."

Other general session speakers include Nathan M. Pusey, president of Harvard University; Norman P. Auburn, president of the University of Akron; and Lawrence A. Kimpton, chancellor of the University of Chicago, who also is this year's chairman of the American council. The council's membership of 140 educational organizations and 1028 colleges and universities is expected to send nearly 1000 college presidents and other top administrators to hear the addresses and to participate in the discussion groups.

Pharmacology

At the fall meeting of the American Society for Pharmacology and Experimental Therapeutics, held at the University of Michigan, Ann Arbor, a resolution was introduced by Dr. Louis Goodman of the University of Utah, and President-Elect of the Society, commending the Past-President of the Society, Dr. Otto Kroyer of Harvard, for his significant leadership of the Society in expanding its program of activity and in developing national headquarters in Beaumont House, Washington, D.C., in conjunction with the American Physiological Society. The resolution was adopted with acclaim. Chauncey D. Leake of Ohio State University presided, and Carl Schmidt of the University of Pennsylvania reported on medical education in Latin America. Bernard B. Brodie of the National Institutes of Health arranged a teaching institute on "Physicochemical Factors in Drug Disposition," and Leake held an informal discussion on teaching pharmacology to non-medical students. A total of 157 scientific reports were given in 16 sections, with emphasis on neuropharmacology and on cardiovascular and autonomic drugs.

Forthcoming Events

October

24-28. American Heart Assoc., San Francisco, Calif. (J. D. Brundage, 44 E. 23 St., New York 10.)

27-28. Child Research in Psychopharmacology, conf., Washington, D.C. (S. Fisher, Psychopharmacology Service Center, Natl. Inst. of Mental Health, Bethesda 14, Md.)

27-28. Plant Physiology, 9th annual research cong., Saskatoon, Saskatchewan, Canada. (D. T. Coupland, Plant Ecology

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"This volume is not a reference intended for use at the introductory student level. It can be reviewed with interest, however, by any serious member of the reading public." *American Journal of Pharmaceutical Education*, July 1956.

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College of Agriculture, Univ. of Saskatch-
ewan, Saskatoon.)

27-29. Radio, Institute of Radio Engi-
neers, fall meeting, Rochester, N.Y. (V.
M. Graham, EIA, 11 W. 42 St., N.Y.)

27-29. Weak Interactions, APS conf.
(by invitation), Gatlinburg, Tenn. (J.
L. Fowler, ORNL, P.O. Box X, Oak
Ridge, Tenn.)

27-31. American Inst. of Electrical En-
gineers, fall general, Pittsburgh, Pa. (N.
S. Hibshman, AIEE, 33 W. 39 St., New
York 18.)

27-31. American Public Health Assoc.,
St. Louis, Mo. (B. F. Mattison, 1790
Broadway, New York 19.)

27-31. Metal Exposition and Congress,
40th natl., Cleveland, Ohio. (ASM, 7301
Euclid Ave., Cleveland 3.)

27-31. Vertebrate Speciation Conf.,
Univ. of Texas, Austin. (W. F. Blair,
Dept. of Zoology, Univ. of Texas, Austin
12.)

27-1. Mental Health, 3rd Latin Ameri-
can cong., Lima, Peru. (B. Caravedo,
Comite Peruano Organizador, III Con-
greso Latinoamericano pro Salud Mental,
Avenida del Golf 1040, San Isidro, Lima.)

29-30. '58 Computer Applications
symp., Chicago, Ill. (M. J. Jans, Armour
Research Foundation, 10 W. 35 St., Chi-
cago 16.)

30-31. Plastics, intern. symp., Philadel-
phia, Pa. (ASTM, 1916 Race St., Phila-
delphia 3.)

30-1. American Assoc. of Textile Chem-
ists and Colorists, 37th natl. conv., Chi-
cago, Ill. (J. G. Kelley, E. I. duPont de
Nemours & Co., Inc., 7 South Dearborn
St., Chicago 3.)

31-1. Central Soc. for Clinical Re-
search, 31st annual, Chicago, Ill. (A. S.
Weisberger, CSCR, Suite 1215, 25 East
Washington St., Chicago.)

November

2-7. Radiology, 6th Pan American
cong., Lima, Peru. (M. Lesonde, Inter-
American College of Radiology, Tucuman
1516, Buenos Aires, Argentina.)

3-4. Italian Soc. of Nuclear Biology
and Medicine, 3rd cong., Florence, Italy.
(Segreteria della Societa Italiana di Bi-
ologia e Medicina Nucleare, Clinica
Medica, Pisa, Italy.)

4. Use of 650 and 704 Computers for
Structure Analysis, conf., Pittsburgh, Pa.
(G. A. Jeffrey, Dept. of Chemistry and
Physics, Univ. of Pittsburgh, Pittsburgh.)

4-7. American Soc. of Tropical Medi-
cine, Miami Beach, Fla. (R. B. Hill, 3575
St. Gaudens Rd., Miami 33.)

4-11. International North Pacific Fish-
eries Commission, 5th annual (by invita-
tion), Tokyo, Japan. (R. I. Jackson, 209,
Wesbrook Building, Univ. of British Co-
lumbia, Vancouver 8, Canada.)

5-7. Society of Rheology, annual, Phila-
delphia, Pa. (W. R. Willets, Titanium
Pigment Corp., 99 Hudson St., New York
13.)

6-7. Nuclear Science, 5th annual, San
Mateo, Calif. (H. Pratt, IRE, 1 E. 79 St.,
New York 21.)

6-8. Geochemical Soc., St. Louis, Mo.
(K. B. Krauskopf, Geology Dept., Stan-
ford, Calif.)

(See issue of 19 September for comprehensive list)