

suggest that the hypotheses of linearity and threshold effects as applied to the behavior of somatic cells have equal likelihood of validity. Our committee inclines to the view that many forms of cancer, including leukemia, arise through a more or less complex series of responses. While somatic mutations may be included among these, it seems doubtful that a strict linearity analogous to that seen in the genetic effects of radiation is as likely to hold in the case of these conditions. We note that there is a considerable body of experimental evidence favoring nonlinearity in specific instances. Also, the report seems largely to emphasize the two extreme possibilities, that of a linear relation and of a threshold, and gives little attention to nonlinear relations. It is recognized that large-scale definitive experiments and demographic observations are needed since they may be of help in resolving these questions. . . ."

At a press conference held at the National Academy when the commentary was released, Shields Warren, chairman of the Committee on Pathologic Effects, announced that the committee was planning to propose a 20-year demographic study of the effects of radiation; the proposal would be presented to Congress within a year. Under the plan, which Warren estimated would cost \$750,000 to \$1 million a year, two groups of about a million persons each would be studied. One group would be made up of those living in an area known to have a high radiation incidence from cosmic rays, such as the Colorado plateau; the other group would consist of those living in a sea-level area of low radiation incidence, probably on the West Coast.

Science Talent Search

Forty high-school seniors, picked from a field of over 28,000, have been named winners in the 18th nationwide annual Science Talent Search. Nine girls and 31 boys have been awarded all-expense trips to Washington, where they will compete for \$34,250 in Westinghouse scholarships and awards during a 5-day Science Talent Institute beginning 26 February.

Begun in 1942, the Science Talent Search is conducted by Science Clubs of America through Science Service, Washington, D.C. The Westinghouse Educational Foundation, supported by the Westinghouse Electric Corporation, sponsors the program.

This year's winners come from 17 states. New York continues to lead all other states in the number of winners produced, six boys and three girls; six of the winners come from New York City and vicinity. Illinois placed second with four.

Proconsul in Uganda

Proconsul, an Old World primate from the Lower Miocene of Kenya, was first described by Hopwood in 1933. This animal is particularly interesting in that, although its teeth exhibit specializations in the direction of the modern African anthropoid apes, the remainder of its known structure, including its brain (as determined from an endocranial cast), skull, and limbs, is much more generalized. Indeed, from animals with extremities of this sort there could have evolved, on the one hand, the modern anthropoid apes with their highly specialized limbs adapted to bimanual, arboreal progression and, on the other hand, the immediate precursors of the bipedal, terrestrial Hominidae [Clark and Leakey, *The Miocene Hominoids of East Africa (Fossil Mammals of Africa*, No. 1) (British Museum, Natural History, London, 1951); Straus, *Am. Anthropologist* 54, 257 (1952); Straus, in *Anthropology Today* (University of Chicago Press, Chicago, Ill., 1953), p. 77]. Thus, although its dental specializations apparently disbar it as the common ancestor of the Hominoidea (= anthropoid apes and man), *Proconsul* does provide a glimpse of what may well have been a critical, basic stage in hominoid evolution.

It therefore is of great interest that W. W. Bishop [*Nature* 182, 1480 (29 Nov. 1958)] has recently reported the presence of an undoubted lower right second molar tooth of *Proconsul nyanzae* (the intermediate-sized of the three known species of *Proconsul*) among a rich and varied mammalian fauna from the Lower Miocene of Napak, Uganda. *Proconsul* hitherto was known from 10 localities in western Kenya, but this is the first record of its occurrence in Uganda. Since this creature evidently had a rather wide distribution, it may be hoped that future exploration will unearth some of the parts of its skeleton that are now missing and which are needed to establish its precise taxonomic status.—W. L. S., Jr.

Statistical Research Monographs

The Institute of Mathematical Statistics and the University of Chicago have established a series of publications entitled *Statistical Research Monographs*. The primary purpose of this series is to provide a medium of publication for material of interest to statisticians that is not ordinarily provided for by existing media. It will help fill the gap between journal articles and textbooks or treatises. Some of the kinds of publications envisaged are as follows.

1) New research results too lengthy for the usual journal article. In particu-

lar, authors will have ample scope for detailed exposition of their findings.

2) Research results of interest in both theoretical and applied statistics. At present authors of such material frequently find it necessary to publish part of their results in a theoretical journal and part in an applied journal.

3) Expository monographs in particular areas of statistics.

4) Discussions of statistical problems and techniques in particular areas of application.

The editorial board consists of David Blackwell (University of California), William G. Cochran (Harvard University), Henry E. Daniels (University of Birmingham), Leo A. Goodman (University of Chicago), Wassily Hoeffding (University of North Carolina), Jack C. Kiefer (Cornell University), and William H. Kruskal (University of Chicago). Authors are invited to send manuscripts and correspondence concerning the series to Leo A. Goodman, Department of Statistics, University of Chicago, Chicago 37, Ill.

Summer Conferences for College Teachers

The National Science Foundation has announced the award of grants totaling approximately \$247,000 to 19 colleges and universities for an experimental program of Summer Conferences for College Teachers. These conferences are directed toward strengthening teachers' mastery of the newer developments in science and mathematics and toward increasing their capacity as teachers. The shorter length of these conferences, 1 to 3 weeks, as compared with the more familiar summer institutes of 4 to 12 weeks duration, will enable college teachers to familiarize themselves with recent advances in their specific fields. Association with colleagues from other areas of the country will be valuable to the participating college faculty members.

Under the new program, some 550 college teachers will receive financial support in the form of stipends up to \$15 per day plus an allowance for travel. Stipend holders will not have to pay any registration fees or tuition. The conferences cover nine major subject-matter areas.

Participants will be chosen by the conferences, not by the National Science Foundation. Inquiries and applications for participation should be addressed to directors of the individual conferences named in the following list. Early inquiry is advised.

Biophysics. Yale University, New Haven, Conn. (Ernest C. Pollard, Biophysics Department).

Basic concepts in physical science. Georgetown University, Washington,

D.C. (Ralph S. Henderson, Department of Physics).

Radioisotopes. Cornell College, Mount Vernon, Iowa (Cecil F. Dam, Department of Physics).

Radioisotopes and tracer methodology. University of Maryland, College Park (Sitarama Lakshmanan, Department of Chemistry).

Structural chemistry. Tufts University, Medford, Mass. (M. Kent Wilson, Department of Chemistry).

Engineering graphics. University of Detroit, Detroit, Mich. (Paul M. Reinhard, Department of Engineering Graphics).

Analog computation. Michigan College of Mining and Technology, Houghton (Kenneth M. McMillan, Department of Mathematics).

Psychology. University of Michigan, Ann Arbor (Wilbert J. McKeachie, Department of Psychology).

Geobotany. University of Western Michigan, Kalamazoo (Harriette V. Bartoo, Department of Biology).

Analytical chemistry. Carleton College, Northfield, Minn. (Richard W. Ramette, Department of Chemistry).

Genetics. Long Island Biological Association, Cold Spring Harbor, N.Y. (Arthur Chovnick, Biological Laboratory).

Chemical instrumentation. New York University, New York (S. Z. Lewin, Department of Chemistry).

Botany. University of North Carolina, Chapel Hill (Victor A. Greulach, Department of Botany).

Process control theory. Case Institute of Technology, Cleveland, Ohio (James R. Hooper, Jr., Director of Special Programs).

Digital computers. University of Oklahoma, Norman (William Viavant, Director of Scientific Computations).

Geology. Oregon State College, Corvallis (W. D. Wilkinson, Department of Geology).

Ecology of fresh-water organisms. University of Pittsburgh, Pittsburgh, Pa. (C. A. Tryon, Jr., Department of Biological Sciences).

Plant biochemistry. Institute of Paper Chemistry, Appleton, Wis. (Elwood O. Dillingham, Department of Chemistry).

Inorganic chemistry. University of Wisconsin, Madison (Edwin M. Larsen, Department of Chemistry).

Liability for Nuclear Accidents

Paul Ruegger of Switzerland, a member of the Permanent Court of Arbitration at The Hague, has been appointed chairman of an International Atomic Energy Agency panel to consider problems of third-party liability in the field of atomic energy. The panel will be composed of representatives of nine

countries which are members of the agency.

The lack of adequate rules and accepted definitions of liability in the case of nuclear accidents constitutes a serious retarding factor in the growth of the atomic energy industry. This is true in national contexts but is still more serious in bilateral or truly international operations such as those carried out under the auspices of the International Atomic Energy Agency. The problem will grow even more complicated if national legislatures adopt different solutions. The initial program of IAEA therefore stresses the need for efforts to establish international standards and definitions of areas of responsibility which would do much to harmonize national practices which are now being formulated in many countries.

The panel will be called together to initiate studies and international action in the field and to propose solutions to the many problems as speedily as possible. It will be left to the panel to consider whether international recommendations or specific steps toward an international convention promise the best results.

News Briefs

Joint hearings on defense preparedness and space exploration were held recently by the Senate Preparedness Subcommittee and the newly formed Committee on Aeronautics and Space Sciences. Lyndon B. Johnson, Senate majority leader, is chairman of both groups. The inquiry was based on two basic themes: (i) Is the United States doing everything that it reasonably can and should to insure the defense of this country and its allies against military aggression? (ii) Is the United States doing everything it reasonably can and should in the exploration of outer space?

The preparedness subcommittee held the widely publicized hearings on missiles last year, following the Soviet Union's launching of the first sputnik on 4 October 1957.

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Measles deaths during 1957 outnumbered deaths caused by poliomyelitis—the first time since 1944 that this has occurred. According to Public Health Service figures, in 1957 there was an estimated total of 410 measles deaths, compared with 220 from poliomyelitis. The 1956 totals were 530 from measles and 566 from poliomyelitis. In 1944 there were 1923 deaths from measles and 1361 from poliomyelitis.

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The Professional Group on Information Theory of the Institute of Radio Engineers, 1 E. 79 St., New York 21, N.Y., has announced a new affiliate plan.

Under the plan, members of selected technical societies are entitled to become affiliated with and receive the publications of some of the professional groups of the IRE without having to join the IRE itself. They need only pay the regular professional group dues, plus \$4.50, rather than the much larger fee (\$10) for full institute membership. The regular PGIT dues are \$3.

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The General Electric Lamp Division, Cleveland, Ohio, has dedicated its new Lamp Research Center at Nela Park and thus launched an intensive program aimed at "advancing the frontiers of knowledge of light production and its effect on all living things." Carl L. Olson, manager facility, said it was built to house an organization of some 250 research people who will not be bound by current thinking as regards the source, form, fabrication, operation, and application of light.

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The U.S. Department of Interior has announced the establishment of a Branch of Archeology, which has started operations with a staff of seven employees. John M. Corbett is head of the branch, which is a part of the National Park Service's Division of Interpretation. Corbett has been with the service since 1957. The new unit's responsibilities include both the locating of historical sites of possible national significance and the uncovering of evidence of the country's pioneer settlers.

Grants, Fellowships, and Awards

Allergy. The Scientific and Educational Council of the Allergy Foundation of America has announced the availability of a limited number of quarterly or summer scholarships at \$500 each in approved medical schools in the United States and Canada. These scholarships, which are to be for a minimum of 8 weeks of training in clinical and research allergy, are available to students who have completed their second or third year in medical school.

Each medical school has been invited to submit the name of one applicant through the dean's office, with a letter from the dean in support of the candidate's application. Direct application from students will not be considered. All applications must be sent *before 1 March* to Dr. Robert A. Cooke, Chairman, Scientific and Educational Council, Allergy Foundation of America, 801 2nd Ave., New York 14, N.Y.

Chemistry. Nominations are invited for the \$500 Dexter Award in the history of chemistry administered by the Division of History of Chemistry of the American Chemical Society. The award will be made on the basis of services