News of Science

Sex Determination

After a quarter-century since the Russian biologist V. N. Shreder first reported that male-determining and female-determining spermatozoa of the rabbit could be separated by electrophoresis, a vexatious period marked by conflicting reports, M. J. Gordon of the University of California appears to have finally settled the question [*Proc. Natl. Acad. Sci. U.S.* (October 1957)]. In 31 litters produced after artificial insemination either with sperm that traveled to the cathode or with sperm that traveled to the anode, the former produced 51 males as against 29 females, the latter 62 females as against 25 males. A difference of such magnitude would be expected to occur by chance in less than one trial per thousand.

The spermatozoa can be observed migrating tailfirst toward the anode or the cathode, and when the polarity of the electrodes is changed, they mutually reverse their direction of travel. Human spermatozoa have likewise been observed previously to migrate tailfirst in an electric field. Although the success in producing males at will was only 63.7 percent and in producing females at will only 71.3 percent, the techniques of separation and insemination are being improved and may eventually lead to a high degree of control over sex determination. The obvious problems that are likely to arise if successful control of human sex determination becomes practicable as a result of such experiments make one wonder whether human beings have yet acquired the wisdom to make use of such wide powers.—B.G.

Who Can Aid Visiting Geneticists?

A number of geneticists from abroad will be coming to the International Genetics Congress in Montreal, 20–27 August 1958. Undoubtedly, some of them can come before the congress and some can stay after the congress. Undoubtedly, also, some would like to visit laboratories in the United States, but to do so they will need dollars.

The Travel Assistance Committee for the congress is anxious to know which laboratories would like to help foreign geneticists by inviting one or more either to give a lecture or to come as a consultant on research. Institutions with funds available for such lectures or consultations should communicate as soon as possible, preferably *before 1 December,* with Harriet B. Creighton, Department of Botany and Bacteriology, Wellesley College, Wellesley 80, Mass.

Science Talent Search

High school seniors throughout the country are competing for awards and scholarships totaling $34,250 in the 17th annual Westinghouse Science Talent Search. Because of an expanded grant recently announced by the Westinghouse Educational Foundation, the amount to be awarded to the winners this year will be more than three times larger than the $11,000 distributed each year in the past.

The search is administered by Science Service. Last year more than 20,000 students entered the contest. From the thousands of applicants, the judges select 40 national winners, who then attend the 5-day Science Talent Institute in Washington, D.C., and compete for the top five scholarships. The entire trip is free of expense to the 40 students.

Cadaver Shortage

A six-part program has been proposed by a committee of the National Society for Medical Research to relieve the increasingly serious shortage of cadavers, a shortage that threatens the quality of medical education in the United States. Oliver P. Jones, head of the anatomy department at University of Buffalo Medical School, and chairman of the committee, says that a majority of medical colleges report that they are unable to obtain enough bodies to teach efficiently, and that some schools have been forced to drop such important courses as surgical anatomy.

The committee's proposed program suggests: (i) a survey of public opinion toward anatomical studies; (ii) a series of conferences with religious leaders, public welfare administrators, undertakers, hospital superintendents, and other persons concerned with the disposition of bodies; (iii) a program of education for persons in the health professions; (iv) a general public educational program; (v) the drafting of modern laws making bodies available through bequest (in 39 states, a person's body is not his own to give after death); and (vi) the establishment of a legal reference service, with standardized forms and procedures for bequeathing a body to a medical school. In the opinion survey, a depth-interview study that will discover underlying sentiments has been proposed. Results of the study will provide a foundation for the other five elements of the program.

The University of Buffalo alone operated its anatomy department last year 23 cadavers short of the number necessary for adequate instruction. It was not able to give anatomical instruction to nurses and people in the public health fields. The department used 37 bodies to instruct 68 dental and 80 medical students. This meant four students to each body—and soon a larger number of students will have to be assigned.

U.S.–U.S.S.R. Populations

The populations of both the United States and the Soviet Union are apparently growing at a steady rather than an explosive rate, with the U.S.S.R. expected to retain its present lead, according to a recent report by the Population Reference Bureau, Washington, D.C. The bureau stressed the word "apparently" in connection with Russian population figures, since no one knows for sure how many Soviet citizens there are. For this reason there will be great interest in the Soviet census that is scheduled to begin in January 1959.

The last time complete census figures were published was in 1926, 31 years ago. In 1937, the Stalin regime denounced and abrogated the census results and ordered another census. Only scattered findings from this census were disclosed in 1939. Based on an official Soviet estimate recently released to the United Nations, the U.S.S.R. population of today is around 205 million; the U.S. population is about 172 million.

The bureau's analysis of available information indicates that the Russian birth rate now stands just about at the same level as the United States birth rate. A generation ago, birth rate trends in the U.S.S.R. and the United States were in opposite directions. In 1926, the Russian birth rate stood at 44 per 1000; it had declined to 33 by 1940; and it fell