Eighth International Congress of Genetics

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A VERY SUCCESSFUL INTERNATIONAL CONGRESS OF GENETICS, the eighth of the series, was held in Stockholm from July 7 to 14. The attendance far exceeded the expectation of the organizers, and, what is more important, the representation was world-wide. According to a report made at the final session by the Secretary-General, the total attendance was about 600, from 38 different nations. There were two main reasons for this wide representation: first, the efforts of the local committee, which, with the aid of very modest support from UNESCO, succeeded in helping a considerable number of geneticists to attend the Congress; second, the increased interest in genetical research, particularly in South American countries, that resulted in increased attendance from those countries. The organizers of the Congress wisely decided not to restrict the attendance of German and Japanese geneticists and made a successful effort to bring several leading workers from Germany and one from Japan. Germany had a total of 7 representatives, from all four zones of occupation. The largest contingent of registrants was from Sweden (150 members), with Great Britain in second place (106 members), and the United States third (94 members). A serious deficiency in the attendance was caused by the absence of Russian geneticists, who, according to the official statement received by the organizing committee, were too preoccupied with work to attend the Congress. This was particularly regrettable, because many geneticists were very anxious to meet their Russian colleagues and re-establish contacts that have been weak for more than a decade. We had hoped that an international congress might provide the opportunity of giving well-deserved recognition to the splendid accomplishments of the ever-diminishing group of geneticists in Russia. That the troubles of Russian geneticists are not yet over is indicated by the fact that they were not allowed to participate in the Genetics Congress, even though Russian delegations attended the International Congress on Radio Communications held the second week of July in Stockholm and the Thirteenth International Congress of Zoology in Paris the same month.

The opening session of the Congress was addressed by its president, H. J. Muller, who gave a brilliant survey of the important problems faced by genetics and pointed out the connection between genetics and certain sociological and political problems. This was followed by a session of three introductory addresses by C. D. Darlington ("The Working Units of Heredity"), T. Kemp ("The Rise of Human Genetics"), and J. B. S. Haldane ("Mutation in Man"). The remainder of the program was devoted to sectional meetings for the presentation of papers, three sections being held simultaneously during each morning and afternoon session. A few of these were "long" papers, with a maximum presentation time of 35 minutes, but the majority lasted not more than 15 minutes each.

Some idea of the problems discussed at the Congress may be obtained from the titles of the various sessions: Human Genetics (6 sessions); Artificially Induced Mutations (5 sessions); Population Genetics (3 sessions); Quantitative Inheritance (2 sessions); Plant Cytogenetics (2 sessions); Animal Cytogenetics; Polyploidy; Numerical Chromosome Variations; C-Mitoses and Nuclear Physiology; Chromosome Structure and Movements; Noneuchromatic Inheritance; Supernumerary Chromosomes and Meiosis Problems; Gene Analysis in Microorganisms; Genetical Mathematics; Genetics and the Species Problem; Physiogenetics; Serological Genetics; Linkage and Gene Analysis in Plants; Environmental Control and Gene Expression in *Drosophila*; Animal Psychogenetics; Mouse Genetics; Mouse Physiogenetics; Color Inheritance in Mammals and Birds; Principles of Applications Within the Field of Agriculture; and Cattle Genetics.

These topics reveal the problems that were emphasized at the Congress and, to some extent, give an indication of present-day trends in genetical research. It is not surprising that research on human genetics received important recognition (2 introductory addresses and 6 sessions were devoted to this field), since the Scandinavian countries are taking a leading part in this line of work. In Sweden and Denmark a great deal of emphasis is placed also on research dealing with cytological and cytogenetical problems, and these topics, under various titles, were discussed at 9 sessions. Two topics that appeared on the program, one dealing with chemically induced mutations and the other with heredity in microorganisms, covered new fields of research, opened up since the previous Congress. The present intense activity of research on chemically induced mutations was reflected in the fact

that two sessions were devoted to this work. Research with microorganisms, on the other hand, did not have a fair share of representation, partly because this work had been discussed at the Microbiological Congress held in Stockholm last year and partly because of a meager representation of American geneticists working in this field.

In addition to the presentation of papers, a program of demonstrations was held in 9 half-day sessions. Twenty-three demonstrations were listed on this program, four of them by American geneticists. The most elaborate of these was the exhibit of C. E. Keeler, which gave a graphic representation of a complex relation in rats between characters affecting coat colors and certain physical and behavior traits.

An important attraction of the Congress was furnished by the preliminary excursions and demonstrations organized by the local committee. In Sweden, more than in any other country, discoveries made in genetical research have been applied to plant and animal breeding, ever since the early days of the science, and very striking results have been obtained, particularly in the effort to improve cereals and other field crops. Centers for plant-breeding work are located in southern Sweden, where a four-day excursion, participated in by about 160 persons, included visits to the Institute of Genetics and the Botanical Garden in Lund, the Horticultural Station in Alnarp, the Plant Breeding Institute and the Gardens of the Institute of Genetics in Svalöv, the Institute of Forest Tree Breeding in Källstorp, the Weibullsholm Plant Breeding Institute in Landskrona, and the Sugar Beet Breeding Institute in Hilleshög. A similar four-day excursion to animal-breeding institutes in southern and central Sweden was organized for those interested in that line of work.

The Swedes were perfect hosts to the visiting geneticists. During the pre-Congress excursions we were entertained at luncheons by the institutions we visited and also at a dinner given in Lund by the Swedish seed growers. On the first evening of the Congress the City of Stockholm held a reception in its most unusual and beautiful City Hall. We spent an evening at the ancient Royal Residence at Drottningholm, where we were entertained by a performance at the palace theater, which has remained unchanged since the 18th Century. We were guests at the National Art Museum, where we had an opportunity to see the famous exhibition of paintings and sculptures from Vienna museums. On Sunday we went to Uppsala, where we visited the University, the Royal Agricultural College, the Linnaeus gardens and residence, and Old Uppsala with its grave hills dating from the 5th Century. The University of Uppsala was our host for lunch, and in the evening we were guests of the City of Uppsala at a Congress dinner held in the magnificent hall of the 16th-century castle.

The local committee, with Prof. Gert Bonnier as Secretary-General, did a splendid job of organizing the Congress. All meetings were held in the city recreation center (Medborgarhuset), which contains an excellent auditorium and lecture halls. In the same building, well-planned information, travel, banking, and mail services, writing facilities, and light refreshments were readily available to the members of the Congress. The program ran smoothly, and the schedule was well adhered to, so that it was a simple matter to hear papers given in different sections. Printed copies of the detailed program and of abstracts of papers were available. In addition, the Swedish geneticists had prepared for the Congress two printed pamphlets, one (61 pp.) describing the institutions visited on the pre-Congress tours through southern Sweden and the other (35 pp.) on "Contemporary Genetics in Sweden," with brief outlines of problems being investigated by Swedish geneticists and a list of research workers in the field. For the ladies accompanying members of the Congress, a well-organized program was arranged, including visits to historical sites, to pottery and chocolate factories, and to art exhibits.

At the final business session of the Congress, 13 members were elected to the Permanent International Committee, the 14th place being left vacant for a Russian member to be added in the future. Two invitations were received for the holding of the next Congress, one from the United States geneticists and the other from the Italian geneticists. The latter was issued tentatively, pending the result of consultation with the Italian government. The Congress authorized the International Committee to decide the place of the next Congress, expressing a preference for Italy. As authorized by the Congress, the International Committee decided to join the International Union of Biological Societies.

It may be of interest to mention that Prof. E. Tschermak was a member of the Congress and one of the most regular attendants at the scientific sessions and on the excursions. It will be remembered that Tschermak was one of the three rediscoverers of Mendel's papers, and consequently one of the originators of the science of genetics. His active participation at the meetings brought vividly to our attention how young a science genetics is.

Including the families of members, more than 100 persons from the United States were at the Congress. Considering that it was not easy this summer to get reservations for travel abroad and considering, also, the high cost of such travel, the American representation was very good indeed. This may have been

due in part to the efforts made by the Genetics Society of America to stimulate interest in the Congress among its members. In 1946 the president of the Society appointed a travel committee (R. C. Cook, M. Demerec, Th. Dobzhansky, and M. M. Rhoades), which kept members informed about the preparations for the Congress and about travel facilities, and which appointed a travel agency to serve the geneticists. Travel arrangements were greatly facilitated by the Swedish-American Line, which reserved 50 round-trip passages for geneticists. In addition, the Genetics Society was fortunate in obtaining grants from the Carnegie Corporation and from Mr. W. P. Draper to help members with travel expenses. Twenty-two members, mostly from among the younger geneticists, received travel grants from the Society.

NEWS and Notes

William G. Madow, of the North Carolina Institute of Statistics, Chapel Hill, has been named professor of mathematical statistics at the University of Illinois, effective January 1, 1949.

Stanley J. Czyzak, who for the past two years has been a Stephen H. Wilder Research Fellow at the University of Cincinnati, has joined the Experimental Nuclear Physics Division of Argonne National Laboratory, Chicago, as an associate physicist.

Alex B. Novikoff has been appointed associate professor of experimental pathology at the College of Medicine, University of Vermont. In his new position he is in immediate charge of the Cancer Research Program within the Department of Pathology which at present includes studies of the biochemical and cytochemical changes in growth and neoplasia.

John L. Magee, of the Argonne National Laboratory, has been appointed assistant professor in the Chemistry Department, University of Notre Dame, and **Ernest L. Eliel,** who has recently received the Ph.D. degree from the University of Illinois, has been appointed an instructor in the same department.

E. L. LeClerg, who has been a principal budget examiner in the Bureau of the Budget, Executive Office of the President, Washington, D. C., has been appointed a research coordinator in the Agricultural Research Administration, USDA. His coordination work will be in the field of crop production.

William H. Adolph recently became professor of biochemistry at Peiping Union Medical College. Dr. Adolph had formerly served as biochemistry professor and acting president of Yenching University, Peiping, China.

Morton M. Rayman, chief of the Biochemical Section, Fermentation Research Department, Publicker Industries, Inc., has been named chief of the Microbiological Branch of the Food Research Division, Quartermaster Food and Container Institute for the Armed Forces, Chicago. In his new position, Dr. Rayman will direct research on the nature and factors affecting the microbiological and histological changes which occur in the processing and storage of foods for the armed forces.

Prem Narrain Agarwal, Central Government of India Scholar, recently became a special international trainee under the International Fellowship Program of Joseph E. Seagram & Sons, Inc., Louisville, Kentucky. In June Dr. Agarwal received his Ph.D. in biochemistry from the University of Wisconsin, where he has been working since December 1945 on the production of food yeast from molasses.

George B. Cressey, chairman, Department of Geography, Syracuse University, has been participating in meetings of the International Geographical Union in Brussels and the International Geological Congress being held in London. Dr. Cressey will return to America in mid-September.

Victor Guillemin, Jr., until recently chief of the physics unit of the U. S. Air Forces' Aeromedical Laboratory at Wright Field, has become a biophysicist for the University of Illinois' new Aero Medical and Atmospheric Institute.

Visitors to U. S.

Sir Chandrasekhara Venkata Raman, Indian physicist and Nobel Prize winner, recently completed the last lap of his 5-week tour of the United States by visiting the Polytechnic Institute of Brooklyn. Here he conferred with I. Fankuchen, professor and head of the Division of Applied Physics, as well as founder of the Institute's crystallographic laboratories, which Sir Raman inspected.

Through his research on the spectra, Sir Raman became interested in the study of precious stones and has amassed a collection of some 500 rare diamonds. This, in turn, led to a study of spectrum variations in diamonds and the problem of the origin of luminescence. This work has given physicists new ideas on the behavior of atoms in crystals and promises to throw new light on the phenomena of fluorescence of solids.

On his return to India (see *Science,* July 30, p. 101), Sir Raman will direct the research and teaching of the newly-completed Raman Research Institute in Mysore province. Patterned after the Royal Institute of London, the Raman Institute will be dedicated to fundamental scientific work. Sir Raman hopes it will become one of the leading scientific research centers as well as an international cultural center accessible to men in all scientific fields.

Rajindar Pal, entomologist for the Malaria Institute of India, will shortly arrive in this country as a research fellow of the National Institute of Health. Dr. Pal will be conducting studies, over the period of the next