

European conference in which Soviet Russia and Soviet Ukraine were represented. The conference drew up a general report of the situation, and the lines were laid down for a series of sanitary conventions, which are now being negotiated between the states of central and eastern Europe as a first defence against epidemics. Finally, the conference prepared a detailed plan for an anti-epidemic campaign in Russia and in the border states, and recommended that the conduct of this campaign should be entrusted to the League of Nations health organization and the epidemics commission. The conference requested the Council of the League to transmit its recommendations to the Genoa conference, on the ground that the latter was to deal with the economic reconstruction of Europe, and because an epidemic campaign in eastern Europe was in its opinion the indispensable preliminary to the work of economic reconstruction. It is hoped that the Genoa conference will decide upon the measures to be taken with reference to the anti-epidemic campaign, and whether they shall be carried out by the health organization of the League of Nations. This health organization consists of, first, a committee appointed by the Council of the League, which acts as the executive body of the organization; second, the Office National d'Hygiène Publique in Paris, a body in existence before the war, which, though not a League organization, acts in close cooperation with the latter, and in practice serves as its general committee, drawing up draft conventions and laying down general lines of policy; third, a secretariat, which forms the health section of the Secretariat-general of the League. The epidemics commission—originally, as has been said, an independent body—is now also attached to the health section, and is therefore really a part of the health organization. An epidemiological intelligence service has been organized to keep the health authorities of all nations informed as to the incidence of epidemic diseases, and a monthly bulletin is being issued containing statistics and charts of the incidence all over the world of cholera, typhus, dysentery, small-pox, and other infectious diseases. Another branch of the work of the health organization was the conference held in London in December, 1921, on the standardiza-

tion of serums and serological tests, when, as reported at the time, a program of inquiry and research was elaborated, to be carried out by the various laboratories and centralized in the Copenhagen Institute. The results will be examined at a forthcoming conference to be held at the Pasteur Institute in Paris.—*The British Medical Journal*.

SPECIAL ARTICLES

THE DOMESTIC FOWL AS A SOURCE OF IMMUNE HEMOLYTIC SERA

DURING the last three years we have obtained abundant evidence which refutes Citron's¹ claim that the chicken is one of the best adapted animals for the production of hemolytic sera. Citron gave no evidence to justify the inclusion of the domestic fowl among the species best adapted to produce hemolytic sera and so far as known to me, none exists. In point of fact, we find this animal one of the poorest hemolysin producers that has come within our experience.

It was known to Bordet², Sachs³, Metchnikoff⁴, and P. Müller⁵ long before the appearance of Citron's book, that a difficulty was involved in demonstrating the sensitizer or amboceptor content of the serum of this animal⁶, and Citron's unsupported claim should have been regarded with suspicion. In spite of this fact, the statement from Citron is still taken at its face value. Thus, Guyer and Smith⁷ have recently made

¹ Citron, J., 1912, *Immunity*. Translation by A. L. Garbat.

² Bordet, J., 1899, "Agglutination et dissolution des globules rouges," *Ann. de l'Inst. Pasteur*, 13: 273.

³ Sachs, Hans, 1902, *Berl. klin. Wochens.*, Nos. 9 and 10.

⁴ Metchnikoff, E., 1907, *Immunity in infective Diseases*, Cambridge Press.

⁵ Müller, P., 1901, *Über Anti-hämolytine Centralbl. f. Bakt. u. Parasitenkunde*, 29: 175.

⁶ Hyde, R. R., 1921, "The reactivation of the natural hemolytic antibody in chicken serum," *Am. J. Hygiene*, 1: 358-362.

⁷ Guyer, M. F., and Smith, E. A., 1918, "Some prenatal effects of lens antibodies," *J. Exper. Zool.*, 26: 65-82.—1920, "Transmission of induced eye defects," *Ibid.*, 171-215.

use of it in support of their contention of having produced in the chicken a serum lytic for the eye lens of the rabbit, with which results of great biological significance were obtained.

The serum of chickens which had been treated with rabbit lens was injected into the circulation of pregnant rabbits. A few of the young of these rabbits had an eye defect which was passed on to succeeding generations. It was contended that the eye defect was in all probability due to the cytolytic action of the chicken serum since chickens are known to be good cytolysin (hemolysin) producers.

We have treated chickens with the red corpuscles from a number of animal species. In no case was any marked increase in the lytic properties of the serum from the treated birds evident. It was found in fact that fresh chicken serum renders rabbit corpuscles non-antigenic for guinea pigs, which accounts for the failure to produce any marked increase in the sensitizer content of the chicken.

In the light of our observation on the production of hemolysins in the chicken, it seems improbable that Guyer and Smith produced in this species a serum lytic for the eye lens of the rabbit. At least the conclusion that cytolysins must have been formed in the chickens treated with the rabbit lenses because of the readiness with which this species produces cytolytic sera, is not tenable.

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THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE TUCSON MEETING OF THE SOUTHWESTERN DIVISION

THE second annual meeting of the Southwestern Division of the American Association for the Advancement of Science was held at the University of Arizona on Thursday, Friday and Saturday, January 26, 27 and 28, 1922. The meeting was opened by President A. E. Douglass in the chair, who, after a welcome and announcements, proceeded with the papers of the physical science

section in open meeting. These were followed by biological papers in the afternoon. In the evening the president's address was given upon the subject, "Some aspects of the use of annual rings of trees in the study of climate." This meeting constituted the formal opening, with addresses of welcome from the acting mayor of Tucson, the president of the Chamber of Commerce, and the acting president of the university. These were responded to by Dr. E. C. Prentiss, the chairman of the executive committee of the Southwestern Division, who was followed by Dr. D. T. MacDougal, introducing the speaker of the evening. This address was followed by the reception to the visiting members given by the Faculty Club of the University of Arizona.

On Friday morning a special reception was given to Señor Ing. Ignacio Salas and his secretary, Señor H. Irigoyen, representatives of the minister of public works of the Mexican government. These guests were introduced by Dr. D. T. MacDougal, general secretary of the American Association. They responded by speeches in Spanish and in English.

The papers of Friday morning dealt with the social sciences, including history and archeology.

The biological papers were continued at 1:45 P.M., and at 2:45 Dr. Henry B. Ward, of the University of Illinois, gave a lecture entitled "The struggle between man and wild life in North America" before a joint meeting of the Sigma Xi Club of the University of Arizona with the Southwestern Division, to which also a special invitation had been extended to the Pima County Teachers' Institute then in session. This was followed by a trip about the campus of the university with visits to the observatory, engineering, physics and research exhibits, and the museum. In the evening Dr. Edgar L. Hewett of Santa Fe gave an illustrated lecture upon "Native American artists" to a joint meeting of the Arizona Archeological and Historical Society with the Southwestern Division. This was followed by a reception in the museum and an exhibit of wireless telephone.

On Saturday morning the three sections were in session simultaneously throughout the morning, except that at 11 o'clock a business meeting was held in which Dr. D. T. MacDougal was elected president of the division for the coming year, and Dr. A. E. Douglass was elected a member of the executive committee. A Yaqui Indian dance was presented in the Yaqui village near Tucson from 2 to 4 in the afternoon, followed by visits