WASSERMANN, AUGUST PAUL VON (b. Bamberg, Germany, 21 February 1866; d. Berlin, Germany, 16 March 1925), *clinical chemistry, serology.*

Wassermann was born in Bamberg and began to study medicine in the nearby university town of Erlangen, before heading to Munich, Vienna, and Strassburg. In 1888 Wassermann graduated MD at the German university of Strassburg and began to work as research assistant to Robert Koch in the Institute for Infectious Diseases of Friedrich-Wilhelms-University of Berlin. Here he was introduced to the methods of laboratory experimentation and to Koch's concept of the relevance of bacteriology for clinical medicine. At the Institute for Infectious Diseases, Wassermann worked on immunity phenomena related to cholera infection and tried to develop antitoxins against diphtheria. As a result of these experimental investigations, he received the 'venia legendi' for hygiene in 1901. Following Paul Ehrlich's advice, Wassermann began to study the binding of toxin and antitoxin in the blood. He then investigated the differing reactions of blood groups in response to various precipitating blood sera. In 1902 Wassermann was made 'Extraordinarius' at the institute and in 1906 received the directorship of the division of experimental therapy and biochemistry. He then began to work on the complement-binding reaction, together with Albert Neisser and his research assistant

Carl Bruck. Those researchers had given experimental proof of the transmission of syphilis from one organism to another. It is debated whether Wassermann had been asked by the director of the Prussian Ministry of Education, Friedrich Althoff, to collaborate with the Breslau group. At that time, the national consciousness was sensitive to the relative state of cutting-edge research, and Wassermann's investigations were of both medical and political significance, because the French serologists were still much ahead of the German scientists.

The collaboration between Wassermann, Neisser, and Bruck laid the ground for the development of a serodiagnostic method for syphilis infection. This method later bore Wassermann's name as one of the central eponyms in clinical chemistry. In his original publication, Wassermann described the reaction as follows: Inactive serum of infected monkeys is combined with complement factors of the guinea pig. When specific hemolytic serum is added and corresponding erythrocytes are included, hemolysis is blocked. Already in 1927 a general review showed that at least 1,500 articles in clinical medicine mentioned the Wassermann reaction. However, as Ludwik Fleck has shown, this was an indirect success, because the identification of syphilis was the initial aim of the research collective, but their work led instead to an experimental system for the identification of syphilis antibodies.

In 1911 Wassermann was promoted to honorary professor for hygiene, and in 1913 the Kaiser-Wilhelm-Institute for Experimental Therapy in Berlin-Dahlem was created especially for him. When World War I broke out, all his technical supplies and the laboratory staff were moved to the Eastern Front in Russia. During the latter half of the war, Wassermann was made chief executive of the section for hygiene and bacteriology in the Prussian War Ministry, and thus was not able to pursue his research. In 1921 a reorganization of his institute took place, along with a change of its name to Kaiser-Wilhelm-Institute for Experimental Therapy and Biochemistry. Although Wasserman later intensified his work on tumor physiology and therapy, as well as on the complement-binding reaction in tuberculosis, he was never as successful later as he had been with the research on syphilis before.

Together with Rudolf Kraus he founded the 'Freie Vereinigung für Mikrobiologie' in 1906. Additionally, Wassermann served as chairman for the 'Akademie für die Wissenschaften des Judentums', and in 1921 he was awarded the Hans-Aronson-Prize. After his death in 1925, Wassermann's institute was closed down and thereafter continued only as a department for immunochemistry within the Kaiser-Wilhelm-Institute for Biochemistry.

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