

**PAWEŁ EHRLICH (1854—1915)  
— JEGO ZASŁUGI  
DLA WSPÓŁCZESNYCH NAUK MEDYCZNYCH**

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1. Wstęp. 2. Edukacja Pawła Ehrlicha — początek pracy naukowej. 3. Narodziny chemoterapii — idea „magicznej kuli”. 4. Badania nad odpornością — teoria łańcucha bocznego. 5. Powrót do chemioterapii — odkrycie salwarsanu. 6. Podsumowanie

**Paweł Ehrlich (1854—1915) — his contributions to modern medical sciences**

*Abstract:* Paul Ehrlich (1854—1915) was one of the notable German bacteriologists and immunologists, well-known as the pioneer of chemotherapy. He was born on 14 March 1854 in Strzelin, near Wrocław. He studied medicine at the universities of Wrocław, Strasbourg, Freiburg and obtained his M.D. from the University of Leipzig. In 1878 Ehrlich became an assistant at the Charité Hospital in Berlin. He elaborated the classification of leukocytes and differentiated the various types of leukaemia, based on the affinity of blood cells for specific dyes. In 1890 Robert Koch invited him to join the staff of the Institute for Infectious Diseases, where Ehrlich turned to the subject of immunity. He perfected a method for standardizing the diphtheria antitoxin doses. In further studies of immunity, Ehrlich developed the side chain theory, based on the idea that specific receptors in the body could combine with toxic substances. He suggested that certain compounds could function as „magic bullets”, attacking specific pathogens while not harming the host tissues. In 1896, Ehrlich became director of a new serum institute at Steglitz (a suburb of Berlin). Three years later he transferred to the similar position at Institute for Experimental Therapy in Frankfurt. Painstaking and time consuming experiments in chemotherapy led him to discover salvarsan, a „magic bullets” against *Treponema pallidum*, first successfully used in 1910. He died in Bad Homburg, on 20 August 1915. For his contributions to the understanding of immunity Paul Ehrlich was awarded the Nobel Prize in 1908.

1. Introduction. 2. Paul Ehrlich's education — beginning of scientific research. 3. Birth of chemotherapy — „magic bullet” idea. 4. Studies on immunity — side chain theory. 5. Return to chemotherapy — discovery of salvarsan. 6. Summary

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*Wpłynęło w listopadzie 2000 r.*