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CONTRIBUTION OF UKRAINIAN SCIENTISTS-BIOLOGISTS TO THE FIGHT AGAINST EPIDEMIC DISEASES (XVIII – FIRST HALF OF THE XX CENTURY)

Summary

The purpose of the article is to highlight and summarize the scientific achievements of Ukrainian biologists and scientists who were born or worked on Ukrainian soil and made a significant contribution to the formation of theoretical and practical foundations of epidemiology, microbiology and immunology, as well as to the development of effective methods of prevention and treatment of infectious diseases. The research methodology is based on the principles of historicism, objectivity, systematicity and comprehensive analysis of the problem. General scientific and historical methods of scientific research were applied – biographical, problem-chronological, objectivity, systematicity, analysis and synthesis

The article shows that the transition from empirical practices of variolation to scientifically based vaccination, initiated by E. Jenner and developed by L. Pasteur, opened a new era of preventive medicine. The activities of Danilo Samoilovich as one of the founders of the anti-plague system of measures and early ideas of immunoprophylaxis are highlighted. The achievements of Élie Metchnikoff are analyzed, in particular the discovery of phagocytosis and the formation of the cellular theory of immunity, which became the theoretical basis for the development of vaccines. The contribution of his students – Nikolay Gamaleya, Waldemar Haffkine, Danylo Zabolotny, Ivan Savchenko, Stepan Korshun and Alexandre Besredka – to the creation of anti-cholera, anti-plague, anti-diphtheria and other vaccines and serums, the introduction of mass vaccinations, the development of enteral immunization, the study of the zoonotic nature of the plague and the organization of the anti-epidemic service are also outlined. It is substantiated that the

activities of Ukrainian scientists had not only regional, but also global significance: their experimental approaches, selfless experiments on themselves, and the organization of specialized institutes contributed to the formation of a global system of infection prevention. The generalization of historical and scientific material allows us to assert that the Ukrainian scientific school took a leading place in the formation of the theoretical and practical foundations of immunoprophylaxis in the 20th century.

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