

**SYNTETYCZNE INHIBITORY
REPLIKACJI HERPESWIRUSÓW
—METODY BADANIA
AKTYWNOŚCI *IN VITRO***

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1. Wstęp. 2. Herpeswirusy. 3. Leki przeciwwirusowe. 3.1. Historia badań. 3.2. Grupy preparatów przeciwwirusowych. 3.3. Leki o działaniu antyherpeswirusowym. 3.4. Mechanizmy oporności szczepów wirusowych. 4. Poszukiwania nowych związków o działaniu przeciwwirusowym. 5. Metody badania aktywności przeciwwirusowej. 6. Metody badania cytotoksyczności. 7. Zasady przeprowadzania testów *in vitro*. 8. Terminologia stosowana w badaniach leków przeciwwirusowych *in vitro*. 9. Podsumowanie

Synthetic inhibitors of herpesviruses replication — *in vitro* activity testing methods

Abstract: *Herpesviridae* are an important cause of human infections, from skin and mucosal changes and rash to several diseases (especially in neonates and immunocompromised). They are also cause of human tumors (EBV — Burkitt's lymphoma, nasopharyngeal carcinoma, B — cell lymphoma and Hodgkin disease, HHV8 is probably the cause of Kaposi sarcoma). The crucial feature of herpesviruses is a possibility of establishing latency, and through that avoiding the host immune response, and later they may reactivate. The ways that we could control viruses' infections are immunoprophylaxis and chemotherapy, although the long search for effective vaccines there is only one licensed vaccine — for VZV. On the contrary there are a lot of licensed antiviral drugs, and it is a major option in our antiviral research. This article describes antiherpesviruses drugs, their structure, mechanism of action, ways of research and methods to check antiviral activity and cytotoxicity of new compound.

1. Introduction. 2. Herpesviruses. 3. Antiviral drugs. 3.1. History of development. 3.2. Classes of antiviral drugs. 3.3. Antiherpes drugs. 3.4. Mechanism of resistance in viruses' strains. 4. Research of new antiviral drugs. 5. Antiviral activity assays. 6. Cytotoxicity assays. 7. Principles for *in vitro* assays. 8. Terminology used in *in vitro* evaluation of antiviral drugs. 9. Summary

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