BIOTECHNOLOGICAL RESEARCH IN THE CREATION AND PRODUCTION OF ANTIRABIC VACCINES

Krasnopolsky Yu. M., Pylypenko D. M.

National Technical University “Kharkiv Polytechnic Institute”, Ukraine
Rabies is a neurological disease of a viral nature, leading to death. Rabies virus is an RNA virus that invades the central nervous system, leading to neuronal dysfunction. Timely vaccination can prevent the diseases development.

_Aim._ The article is devoted to immunobiotechnological research aimed at creating antirabic vaccines.

_Results._ The history of the antirabic vaccines creation from the first inactivated vaccines obtained from nervous tissue to the cultivation of the virus on animal cell cultures is considered. The article presents commercially available anti-rabies vaccines: their composition, the used rabies virus strains, cell cultures, the methods of inactivation and purification. The technology of producing an anti-rabies vaccine based on a Pitman Moore virus strain and a chicken fibroblast cell culture is presented. The advantages of different vaccine types are considered: live attenuated, peptide, liposomal, RNA vaccines, vaccines based on viral vectors, transgenic plants and reverse genetics methods.

_Conclusions._ The development of biotechnology, immunology and virology makes it possible to improve constantly vaccine preparations, including those against rabies, increasing their effectiveness and safety.

**Key words:** immunobiotechnology, viral vaccines, antirabic vaccine, RNA virus, rabies virus.

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