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New biological systems for the detection of animal viral infections pathogens

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Viral infections still occupy a leading position in infectious diseases. Despite significant advances in vaccine prophylaxis cannot completely eradicate the infectious diseases. Against the background of existing and known viral infections there are new. Some of them relate to emergent infections reservoirs of pathogens which, in 75% of cases are animals; most often this animal wildlife. For example, representatives of all classes of reptiles can be intermediate hosts or reservoirs of different viruses that can infect humans, other mammals and birds. New emergent infections are a serious potential threat not just artificially created but natural populations of reptiles and amphibians and can lead to the spread of pathogens dangerous diseases among susceptible animals and people. Therefore there is an urgent need for the development of veterinary measures aimed at early diagnosis of infectious diseases. These questions become all the more important not only for keeping reptiles and amphibians as objects zoo-cultures, especially in the implementation of programs to preserve and of species reintroduction, as well as the regulation of trade, transportation and installation of veterinary standards for this group of animals. The diseases of amphibians in the last few years caused an increased interest not only because of a sharp decline in their numbers due to destruction of their natural habitats, sudden outbreaks of infections that lead to high death of these animals. Therefore, further study of reptile and amphibian viral diseases needs improving of diagnostic methods and the invention of new sensitive to pathogen permissive cell lines will be used to highlight of the pathogens study of morphology, evolution, ecology and definition epizootic and antropozoonotic potential of these viruses as obtaining of animal cell line collections that is very important. For establishment of new biological systems that may be used for diagnostic studies of viral infections of cold-blooded animals (reptiles and amphibians). We first conducted in Ukraine of successful cultivation of primary cell cultures derived not only from amphibians but also from reptiles' donors of cell lines from lizard (*Lacerta agilis*), chameleon (*Furcifer pardalis*) and frog (*Xenopus laevis*). Thus, we obtained and cultivate in monolayer of cell lines from oviduct of *Furcifer pardalis*-the line OvFp (80 passages) and kidney cell line KFp (24 passages) at 35-37° C. They easily adapt to growth and at temperatures of 28-30°C by planting doses of 170-200000 cells/cm³. These are the small epithelioid cells. Also had bred and cultivated in monolayer of cell line HLa from lizard heart (*Lacerta agilis*) at temperatures of 35-37°C. It is easily adapted to growth at temperatures of 28-30°C by doses of 180-200 000 cells/cm³. These are the small fibroblast cells. Thus, we have obtained of new biological models that can be used in virus isolation, in diagnostic and monitoring investigation, studies of ecology and evolution.

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