

Virus Isolation Data from Water of some European Rivers: An Overview

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SUMMARY

The present overview is the result of our scrutiny of data concerning the presence of viruses in the water of diverse European rivers. These data were assembled from the published literature - articles, doctoral theses and reports from investigations conducted by environmental virologists beginning during the final years of the sixth decenium of the twentieth century, first in France, Czechoslovakia, Romania, Ukraine, U.S.A. then in other European and countries worldwide. The overview covers the methodology referring both to water sampling (by gauze pads or by grab procedures), and to virus detection methods, including virus concentration from large volumes of water and the inoculation of virus concentrates on cell cultures and/or into suckling mice. Other more recently elaborated methods of virus detection and identification, consisting of immunological tests, as the enzyme immunoassay (EIA), immunofluorescence (IF), or the genetic techniques, as the molecular hybridization and flow cytometry (FC), were also applied. The obtained results refer to the virus positivity with the specification of virus types and various virus contamination levels of these waters. Finally, the ways by which the viral contamination of the searched river waters might be demonstrated and, ways by which the human body can be contaminated by the virus polluted river waters are discussed, and some conclusions and recommendations are formulated.

Key words: river water, enteric viruses

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