NOTE

Highly adherent Salmon Embryo cell lines (CHSE-214, SSE-30) infected with *Mycoplasma* spp. may be highly susceptible to viruses

O. Schachner*, A. Dressler and M. El-Matbouli

Division of Fish Medicine, Department for Farm Animals and Veterinary Public Health, University of Veterinary Medicine Vienna, Austria

Abstract
Monolayers of different salmon embryo cells were more adherent to cell culture flasks and resistant to bacteria but almost as susceptible to Infectious haematopoietic necrosis virus (IHNV) as epithelial cells. Infection of Chinook salmon embryo cells (CHSE-214 cells) with *Mycoplasma* spp. did not prevent sensitivity to Epizootic haematopoietic necrosis virus (EHNV), Salmon alphavirus (SAV) and distinct Viral haemorrhagic septicaemia virus (VHSV), Infectious pancreatic necrosis virus (IPNV) and Infectious haematopoietic necrosis virus (IHNV) isolates.

Adherence of cell monolayers depends on external culture conditions and the cell line (CL) morph type. Usually fibroblastic CLs are more adherent but less susceptible to Infectious haematopoietic necrosis virus (IHNV) than epithelial CLs. Also the impact of bacteria on growth of diverse CLs and their susceptibility to different viruses may differ. Although *Mycoplasma* spp. are regarded as primarily obligate commensals or parasites (Dandekar et al., 2002) in cell culture labs they are mainly known for their potential interference with CL susceptibility to viruses. A possible synergistic effect favourable for virus adsorption did not yet attract special attention. Lately high Infectious haematopoietic necrosis virus (IHNV) susceptibility of usually resistant RTG-2 cells has been observed associated with increased adherence and an unapparent infection with *Mycoplasma* spp. (Schachner et al., 2016). Here a similar effect is reported for the IHNV sensitivity of salmon embryo (SE) cell lines. These cell lines are considered to be more adherent and resistant to microbes than other epithelial CLs.

In the 1980s the CL from Chinook salmon embryo (CHSE-214) established in the USA (Fryer et al., 1965; McCain, 1970) has been recommended for the propagation of all fish viruses economically important in central Europe (Liversidge et al., 1985). These cells and also those from Sockeye salmon embryo (SSE-30) (McCain, 1970) proved as highly appropriate for reliable cultivation and detection of various viruses including IHNV.

* Corresponding author's email: oskar.schachner@vetmeduni.ac.at