

## INFECTION OF *ARTEMIA* SP. BY LYMPHOCYSTIS DISEASE VIRUS (LCDV)

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Genera in the family *Iridoviridae* are traditionally divided into two groups (probably representing subfamilies), mainly based on host range and level of genomic methylation. Members of the genera *Iridovirus* and *Chloriridovirus* infect invertebrates (e.g., insects and crustaceans). In contrast, members of the *Ranavirus*, *Lymphocystivirus* and *Megalocytivirus* genera infect cold-blooded vertebrates such as fish, amphibians, and reptiles. The Lymphocystis disease virus (LCDV), which belongs to the genus *Lymphocystivirus*, is the causative agent of lymphocystis disease, a well-known pathology that affects more than 140 species of teleost fish from marine, estuarine and freshwater environments, with a worldwide geographical distribution.

The brine shrimp *Artemia* sp. is essential in the dietary regimen of larval stages of fish and crustaceans in aquaculture practice. *Artemia* nauplii have been considered as possible vectors for the introduction of different microbial pathogens into fish and shrimp rearing systems, including some viral pathogens. Recently, we have demonstrated that infective LCDV persists along *Artemia* life cycle after bath challenge, being LCDV-positive nauplii a possible vehicle of viral introduction in fish hatcheries.

In the present work, different developmental stages of *Artemia* sp. (metanauplius, juvenile and adult) were experimentally infected with LCDV by immersion. Results of viral quantification (both by qPCR and cell-culture viral titer determination) and expression showed that LCDV establishes a productive infection in *Artemia*, at least under experimental conditions, extending the host range of this virus to crustaceans.

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