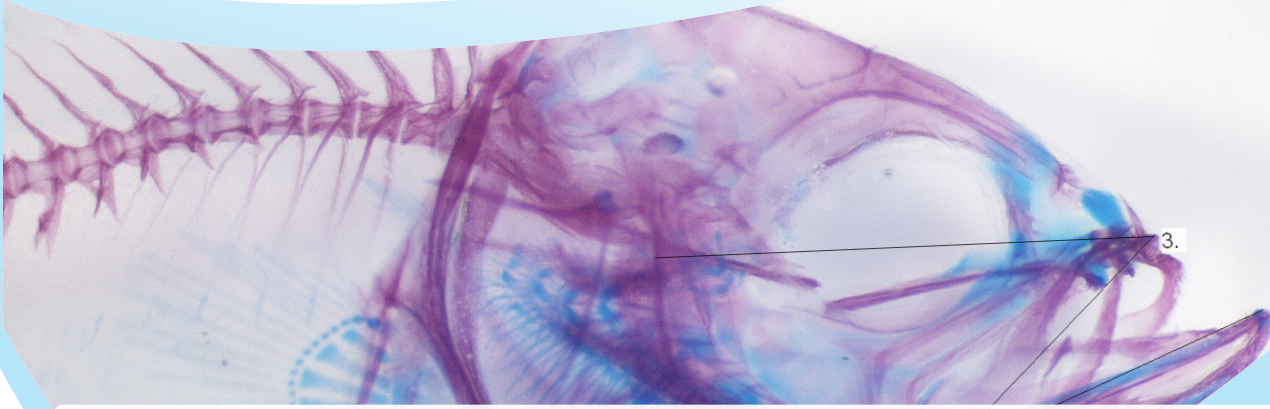


# Aquatic Animals Disease Research Service



**ABT Innovia** is an independent aquatic, aquaculture, biotechnology research facility that forms part of **AquaBioTech Group**.

**AquaBioTech Group** is an international aquaculture and fisheries consulting company strategically located in the Mediterranean, on the island of Malta. It operates globally, with clients and projects in over fifty-five countries. Staff are recruited from across the globe, enabling communication with clients in thirteen languages.

**AquaBioTech Group** undertakes a variety of aquaculture, fisheries, marine surveying, aquatic environmental, financial, and technical projects, performed with its selected, worldwide partners.



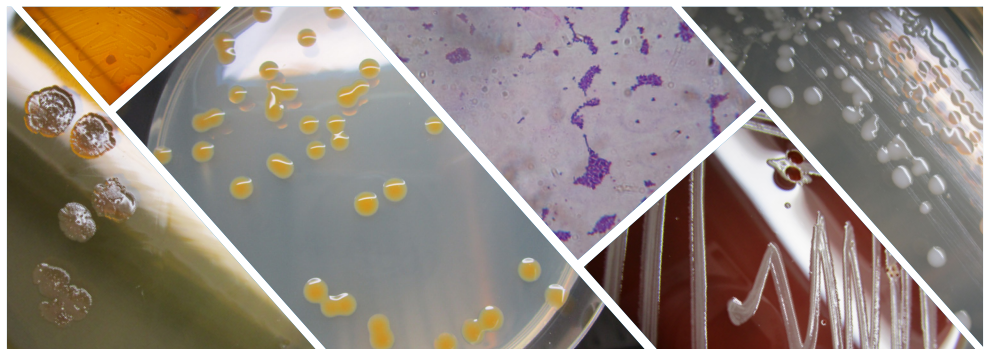
**AquaBioTech Group**



## FISH HEALTH SERVICES

### WHAT IS A DISEASE?

A disease is a specific abnormal condition, such as a disorder of a structure or function that affects part or all of the organism. It may be caused by factors originating from an external source, or by internal problems. When a disease appears, the production of the farm may be seriously affected, both in terms of production scheduling and financially, hence such problems need to be sorted out in the most effective and rapid way.



### AETIOLOGICAL IDENTIFICATION OF A DISEASE OUTBREAK

As part of the best clinical approach to a disease outbreak, it is crucial to identify the aetiological agent. Only when it is identified sufficiently, can the therapy to recover the health of the fish be applied, minimizing the suffering of the animal and the economic impact of the outbreak.

### LABORATORY AND ANALYTICAL CAPABILITIES

In our laboratories, and in collaboration with various research centres, we can perform several tests which are useful in the diagnosis and treatment of a disease outbreak.

- Microbiological isolation of bacteria
- Identification by biochemical tests
- Optical microscope classification
- Histology
- RT PCR
- ELISA

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## FIGHTING AGAINST AQUATIC ANIMAL DISEASES

Our facilities work closely with some of the most important companies testing and developing products having the aim of reducing the occurrence of specific diseases in commercially important aquatic animal species. New techniques and products are continuously being developed to make aquaculture a more profitable and sustainable activity.

## CHALLENGE MODELS

After several years working in the field of product efficacy, we have developed models for many disease pathogens that threaten aquatic animal production. Our facilities have an extensive background working with some of the most relevant diseases affecting fish in aquaculture, such as *Streptococcus agalactiae* but also other pathogens which are more difficult to work with such as *Flavobacterium psychrophilum*.

## MICROORGANISM'S CRYOPRESERVATION

Cryopreservation or cryoconservation is a process where cells are preserved by cooling to sub-zero temperatures. It is one of the most common methods used to keep a pathogenic bacteria potent for a long time for future studies.

## ECONOMIC IMPACT OF AQUATIC ANIMAL DISEASES

The key reason for the success of salmon cultivation was the vaccination of the fish to protect them against several infections. A farm having a disease outbreak not only suffers a dramatic increase in the production costs but the fish harvested might not be able to reach the optimum market value, due to the appearance of the product or a potential risk for human health.

## ANIMAL WELFARE

The ethical and humane treatment of all animals in our care is one of our highest priorities. Therefore, we implement the 3R's principle when animal testing is required.

- Replacement
- Refinement
- Reduction

