

## PHOTOBIOLOGY AND BIOTECHNOLOGY OF AQUATIC ORGANISMS (FYBOA)



### INTRODUCTION

This research group is composed of qualified personnel (13 doctors and 7 graduates) who mainly carry out their scientific activity in two areas, photobiology and the biotechnology of water organisms. The results obtained from their research lend themselves to industrial application in sectors as diverse as the pharmaceutical or foodstuff sectors or that of fish farming.

### RESEARCH TOPICS

- Photoecophysiology of macroalgae and microalgae.
- Climate change in water systems.
- Primary production in extreme ecosystems.
- Biotechnology of the biofiltration of effluents (fish and pig farms) by means of algae.
- Photoprotectors, antioxidants and immunostimulants of algae.
- Marine Cosmeceutic.
- Prophylaxis of diseases in aquaculture. Factors of immunogenic virulence.
- Biocontrol of aquaculture pathogens by natural means. Probiotics
- Improvement of the health of aquatic organisms through the use of functional diets.
- Study of the intestinal barrier of aquatic organisms. Implication of the microbiota.

### SCIENTIFIC-TECHNICAL SERVICES

- Monitoring solar irradiance in visible and ultraviolet range. Spectrum of biological action.
- Assessment and tests of new photoprotector substances.
- Tests on antioxidant capacity of substances of plant origins.
- Biofiltration of effluents (fish and pig farms) by means of algae.
- Assessment of the use of the biomass of biofiltrator algae as functional fodder.
- Bacteriological diagnosis of pathogens.
- Biocontrol strategies: characterization of potential probiotics.
- Evaluation of the immune response and preparation of vaccines.
- Characterization of the microbiota of animal, environmental and clinical samples.
- Study of gene expression by molecular methods.

RESEARCH GROUP LEADER: NATHALIE KORBEE PEINADO  
PAI CODE: RNM295

### CONTACT

PHONE: 952 136 652 | FAX: 952 132 000

E-MAIL: [nkorbee@uma.es](mailto:nkorbee@uma.es) | WEB: <http://www.fyboa.uma.es>

ADDRESS: Dpto. Ecología. Facultad de Ciencias. Teatinos. 29071. Málaga