

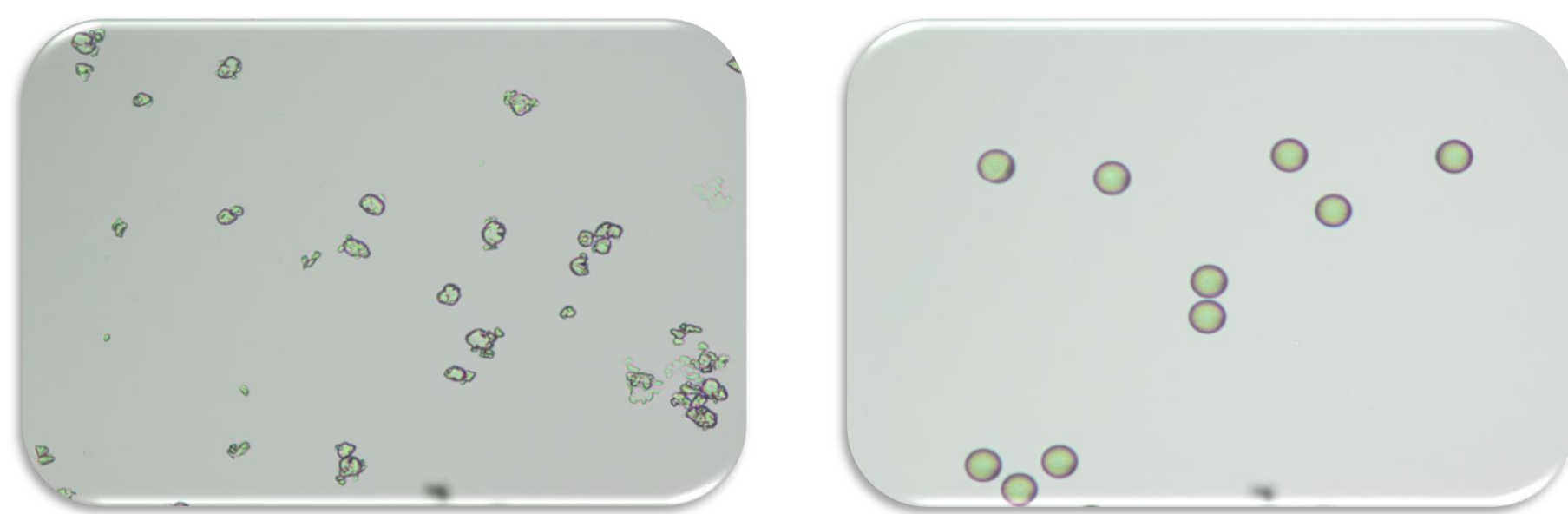
# High density polyethylene and polystyrene microplastics as vectors of Triclosan towards marine invertebrates: signals of reduced bioreactivity

Martínez-Gómez, C., Oporto, T., Gómez-Rubio, A., García-Pimentel, M.M., León V.M.

**AIM:** To evaluate effects on mussel immune function after acute short-term *in vivo* co-exposure to Triclosan and polyethylene and polystyrene microplastics.

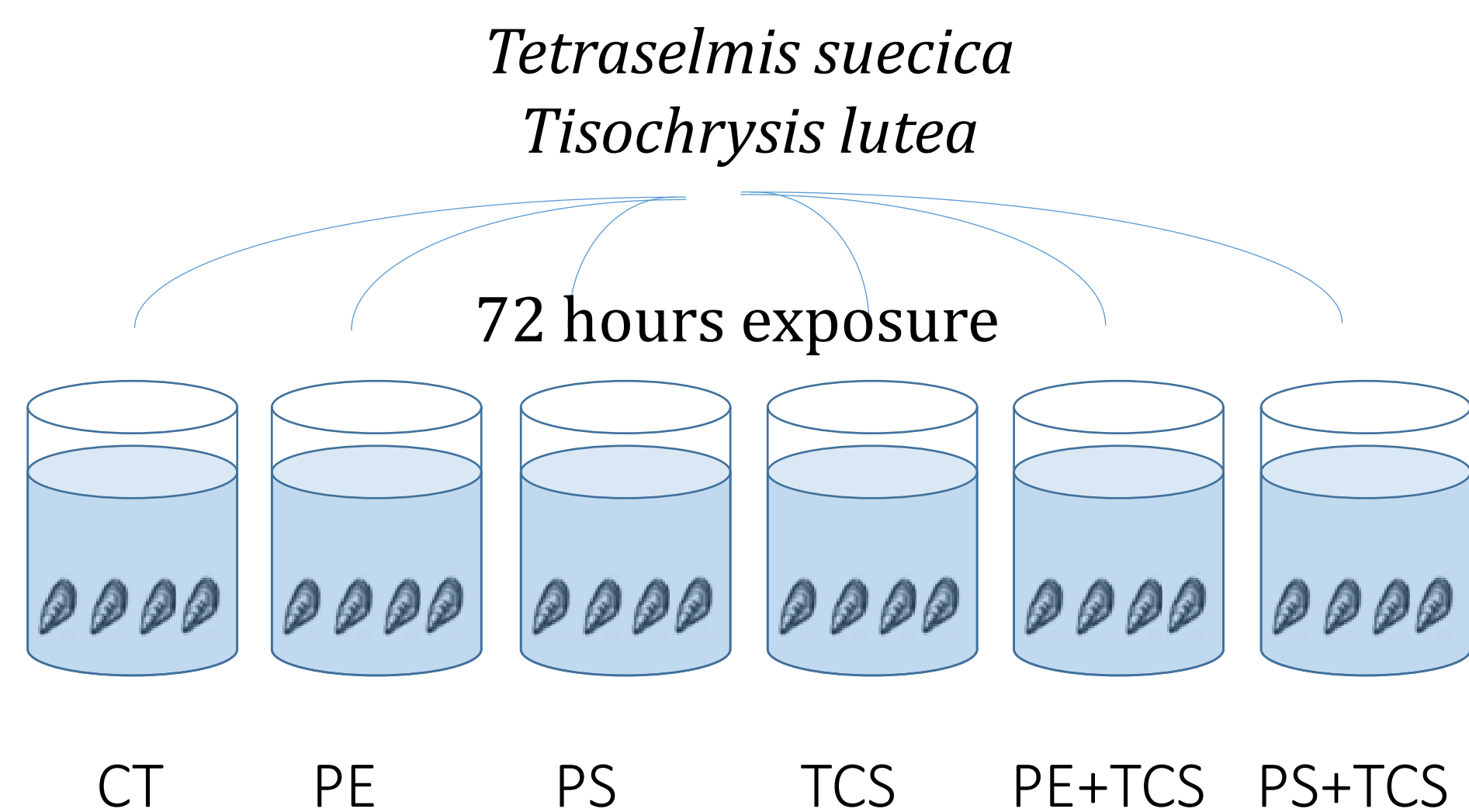
**METHODS:** *Mytilus galloprovincialis* as organism model

- ❖ Triclosan (TCS) → 200 µg·L<sup>-1</sup>
- ❖ MPP-635XF (PE) → 1 mg·L<sup>-1</sup>
- ❖ PSMS-Cospheric PS (PS) → 1 mg·L<sup>-1</sup>

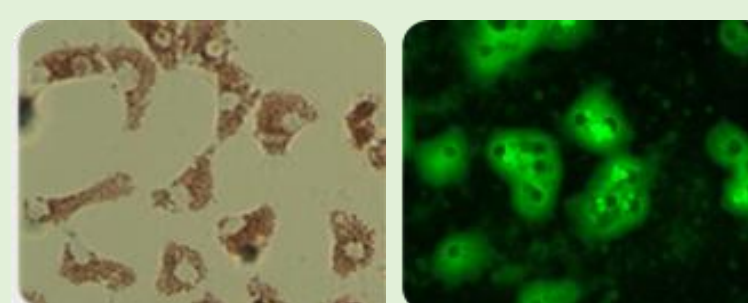


∅ 15 to ≤ 1 µm

∅ 15 [14-20 µm]



## Endpoints:



Lysosomal membrane stability  
Phagocytic efficiency  
Extracellular lysozyme activity  
Extracellular ROS production

## RESULTS:

Mussels co-exposed showed effects lower than or comparable to those observed with individual exposures.

## CONCLUSIONS:

An additive effect on immune function derived from the co-exposure of TCS+PE and TCS+PS microplastics is minimal and can be neglected.

A weak antagonistic effect is suggested, potentially due to a reduction in their bioreactivity as a consequence of the adsorption of TCS to the surface of the ingested microplastics.

