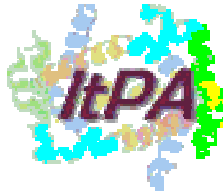




CONSIGLIO NAZIONALE DELLE RICERCHE
DIPARTIMENTO SCIENZE DELLA VITA



Dipartimenti di:

Biochimica Medica, Biologia Medica e Fisica Medica

Biochimica e Biologia Molecolare "*Ernesto Quagliariello*"

A large, circular, semi-transparent image of the Hotel Sierra Silvana, showing its distinctive architecture with a central tower and multiple wings, set against a light blue sky.

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INTERDISCIPLINARY STUDY FOR THE EVALUATION OF BIOCHEMICAL ALTERATIONS ON MUSSEL MYTILUS GALLOPROVINCIALIS EXPOSED TO A TRIBUTYLTIN-POLLUTED AREA

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An interdisciplinary approach was employed to monitor the concentration and the effects of butyltin compounds in mussels (*Mytilus galloprovincialis*). Tissues from animals exposed to a marine area (Vado Ligure harbour) with a high concentration of tributyltin (TBT) were analysed and compared with control samples. TBT concentrations were measured by gas chromatography-mass spectrometry and the protein pattern in gill tissues was studied by proteomic analysis. Several proteomic signatures associated with contaminant exposure were observed; spots that were significantly increased in all contaminated samples were identified by mass spectrometry as fragments of beta-tubulin. The degradation of beta-tubulin was then confirmed by western blot analysis with specific anti-beta-tubulin antibody. The effects observed on mussel gills after exposure in the TBT-polluted area are discussed.