

[P-87]**Studies on the Octachlorostyrene Biomarkers of *Oryzias latipes* by Medaka DNA Chip**

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Octachlorostyrene(OCS) is a primarily concerning chemical in many countries because of its persistence and bioaccumulation in the environment. OCS is not a commercially manufactured or used but it may be produced during incineration and combustion processes involving chlornated compounds. There are several reports in foreign countries such as USA, Canada, Belgium, and Italy that OCS has been detected in the waters, sediments, fish, mussels, and also human tissues. However, systematic studies on the OCS toxicities are scarce in literature. In this study, we tried to get the gene expression data using medaka cDNA microarray to identify biomarkers of OCS exposure. Medaka was exposed to OCS 1ppm for 2 days and 10 days, respectively. Total RNA was extracted and purified by guanidine thiocyanate method and the Cy3- and Cy5-labelled cDNA produced by reverse trancription of the RNA was hybridized to medaka microarray. As results, eighty five genes were down or up regulated by OCS exposure and seven genes such as tissue inhibitor of metalloproteinase, early growth response 1, selenoprotein M, squalene oxidase, TBT-Binding protein, annexin max 3, heat shock protein, were quantitatively analysed by real time PCR.

Keyword: medaka, DNA chip, biomarker, Octachlorostyrene