Program	**Program NUCLEU PN 06-12 01 13**
Project title (ENG):	**Development of enzymatic techniques for the assessment of intoxication degree of aquatic organisms (fish) subjected to priority hazardous substances action.**
Project title (RO):	**Dezvoltarea de tehnici enzimatice pentru evaluarea gradului de intoxicare al organismelor acvatice (pesti) supuse actiunii toxice a substantelor chimice prioritar periculoase**
Duration	2006-2008
Team Leader	Irina Lucaciu
Summary (short description) ENG	The project aimed to select the appropriate methods of enzyme dosing as well as the developing and implementation of methods for determining the activity of enzymes involved in oxidative stress (superoxide dismutase, catalase, peroxidase, glutathione S transferase, glucose 6 phosphate dehydrogenase) from different organs of aquatic organisms (fish) subjected to toxic action of priority hazardous substances class of herbicides (atrazine, monolinuron) or organophosphorus insecticides (mevinphos, trichlorphon). Thus, it has carried out the assessment of acute subacute and chronic toxicity, of priority hazardous chemical substances, class of pesticides on aquatic organisms (freshwater fish), using as a measure tool the effect of antioxidant enzyme system level.
Summary (short description) RO	Proiectul a avut ca obiectiv selectarea metodelor optime de dozare enzimatica si efectuarea de cercetari experimetale pentru implementarea in laborator a metodelor de determinare a activitatii enzimelor implicate in stresul oxidativ (superoxid dismutaza, catalaze, peroxidaze, glutation S transferaza, glucozo 6 fosfat dehidrogenaza) din diferite organe ale organismelor acvatice (pesti) supuse actiunii toxice a unor substante prioritar periculoase din clasa erbicidelor (atrazin, monolinuron) sau insecticidelor organofosforice (mevinfos, triclorfon). Astfel, s-a efectuat evaluarea toxicitatii acute, subacute si cronice a unor substante chimice prioritar periculoase, din clasa pesticidelor asupra organismelor acvatice (pesti de apa dulce), utilizand ca instrument de masura efectul inregistrat la nivelul sistemului enzimatic antioxidant; experimenarea / verificarea / dezvoltarea unor metode de dozare a activitatii enzimatice specifice ale enzimelor antioxidante (superoxid dismutaza, catalaza, peroxidaza, glutation S transferaza, glucozo 6 fosfat dehidrogenaza) din diferite organe ale organismelor acvatice (pesti).
Dissemination of results	
Full-paper ISI	Ivan Stefania, Irina Lucaciu, Gentiana Rusu. Iancu Vasile, *Toxicity of some dangerous chemicals on Superoxide dismutase enzymatic activity*, JEPE (Journal of Environmental Protection and Ecology), 11 (1):247-252, 2010.
Conferences (platform, poster, abstract / full-paper)	Gentiana Rusu, Irina Lucaciu, Biochemical methods for intoxication rate estimation of aquatic organisms (fish) subject to toxic action of dangerous chemicals, publicata extenso in Volum 2 al Simpozionului, "The Environment and Industry" pag. 202-208, Octombrie 2007
	Stefania Ivan, Irina Lucaciu, Gentiana Rusu, *Studii ecotoxicologice pentru controlul substantelor chimice prioritar periculoase si evaluarea gradului de intoxicare a organismelor acvatice*, A XXIX-a Conferinta Nationala de Chimie, Oltchim, 04-06 oct. 2006, Calimanesti-Caciulata, Valcea.

Conferences (platform, poster, abstract / full-paper)	Ivan Stefania, Irina Lucaciu, Rusu Gentiana, *Enzymatic methods for intoxication rate evaluation of aquatic organisms (fish) subject to toxic action of dangerous chemicals*, Romanian International Conference on Chemistry and Chemical Engineering, RICCCE XV, 19-22 septembrie 2007, Sinaia
	Ivan Stefania, Irina Lucaciu, Rusu Gentiana, *Biochemical methods for intoxication rate estimation of aquatic organisms (fish) subject to toxic action of dangerous chemicals*, International Symposium "The Environment and Industry", INCD ECOIND, 25-27 October 2007, Bucharest, Romania.
	Margareta Nicolau, Marcela Mitrita, Stefania Ivan, Gentiana Rusu, Ines Nitoi, *Contributions Regarding Determination, Ecotoxicological Testing and Removal from Aqueous Systems of Priority Dangerous Substances*, The Central and Eastern European Conference on Health and the Environment – CEECHE, 2nd Edition, Slovak Medical University, US EPA, 22-25 October 2006, Bratislava, Slovacia.
	Ivan Stefania, Irina Lucaciu, Gentiana Rusu, *Toxicity of some dangerous chemicals on Superoxide dismutase enzymatic activity*, International Conference on" Quality of life and environment in the frame of E.U. sustainability, International Conference on" Quality of life and environment in the frame of E.U. sustainability", 15-17 noiembrie 2007, Belgrad, Serbia.
	Stefania Gheorghe (IVAN), Irina Lucaciu, *Microbiotests – a specific type of bioassays as alternative methods for conventional ecotoxicity tests*, WG 3 meeting COST Action 636, Xenobiotics in the Urban Water Cycle10-11 April 2008 in Kgs Lyngby (Copenhagen).