

# TECHNICAL PROGRAMME

## ORAL PRESENTATIONS

**SUNDAY, JUNE 12**

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### PRE- SYMPOSIUM WORKSHOPS

- 9:00- 10:00      **WORKSHOP 1**  
Monitoring aquatic environments with bivalve shellfish: case studies from Eastern Canada  
*C. Blaise and F. Gagné (Canada)*
- 10:00- 11:00      **WORKSHOP 2**  
Fast, automatic and non destructive quality- and phenotype-assessment of complete higher plants and agricultural products with the LemnaTec scanalyzer  
*J. Vandenhirtz (Germany)*
- 11:00- 12:00      **WORKSHOP 3**  
Monitoring for whole effluent toxicity: Luminotox: A rapid screening test  
*F. Bellemare (Canada)*
- 12:00- 13:00      **WORKSHOP 4**  
Demonstration of an electronic guideline for the selection of toxicity tests for water quality management  
*J. L. Slabbert (South Africa)*
- 18:00- 19:30      **MEETING OF INTERNATIONAL SCIENTIFIC COMMITTEE**
- 19:00- 21:00      **REGISTRATION**

### SYMPOSIUM OPENING SESSION

**Chair: A. Kungolos**

- 19:30- 19:35      **Opening remarks**  
*A. Kungolos*
- 19:35- 20:25      **Greetings from officials**
- 20:25- 20:30      **ISTA 12 sponsorship acknowledgements**  
*A. Kungolos*
- 20:30- 22:30      **WELCOMING DINNER, HOTEL SKIATHOS PRINCESS**

## MONDAY, JUNE 13

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9:00-11:00      **REGISTRATION**

### **SESSION 1**

#### **CYANOBACTERIAL TOXINS- FRESHWATER ISSUES**

**CHAIRS: I. Falconer and R. Marinsek Logar**

- 9:00-9:20      Cyanobacterial (blue-green algal) toxins in water supplies;  
Cylindrospermopsins  
*I.R. Falconer, A. R. Humpage (Australia)*
- 9:20-9:35      Toxicity and genotoxicity testing of drinking water  
*R. Marinsek Logar, A. Zrimec, M. Berden Zrimec, B. Lah, T. Tisler (Slovenia)*
- 9:35-9:45      Rapid test for detecting cyanobacterial toxins  
*A. Törökne, (Hungary)*
- 9:45-10:00      Phytoplankton in surface water and relevant toxicity problems: Removal  
potential by ozonation  
*V. Spaneli, A. Sfyrla, M. Petala, P. Samaras, M. Moustaka-Gouni, A.  
Zouboulis and G.P. Sakellaropoulos (Greece)*
- 10:00-10:15      Potential of chironomids as sentinels of pollution in the Nzoia river, Kenya  
*O. Osano, S. Mogere, E. A. J. Bleeker, M. H. S. Kraak and W. Admiraal  
(Kenya)*
- 10:15-10:30      Early detection of toxic cyanobacteria by application of molecular analysis  
*J. Mankiewicz, Z. Romanowska-Duda, and M. Zalewski (Poland)*
- 10:30-10:45      Measuring the effects of pesticides on occupationally exposed humans with  
the comet assay  
*S.M. Piperakis, K. Kontogianni, M.M. Piperakis, R. Marcos, S. Tsilimigaki  
(Greece)*

10:45-11:05      **COFFEE BREAK**

### **SESSION 2**

#### **BIOMARKERS AND BIOSENSORS**

**CHAIRS: T. V. Yiannakopoulou and M. F. Pessoa**

- 11:05-11:20      Microbial food web and biosensors of wastewater treatment process  
*V. Kaimakidou, and T. V. Yiannakopoulou (Greece)*
- 11:20-11:35      Organotin biomonitoring in Portuguese marine and estuarine systems as shell  
thickening index (STI) in oyster as a biomarker  
*M.F. Pessoa and J. S. Oliveira (Portugal)*
- 11:35-11:50      Hepatoprotective activity of *Gundella Tourenfortii*  
*H. Niknahad, A. Jamshidzadeh, F. Fereidooni, Z. Salehi (Iran)*

- 11:50-12:05 Identify the genotoxicity of soil pollution by *in vivo* and *in vitro* earthworm bioassay and chemical analysis  
Z.Wang and Y. Chen (China)
- 12:05-12:20 Validation of a biomarker-based methodology for the ecotoxicological monitoring of an on-shore oil extraction area: The BioTre project  
S. Casini, M. Ferraro, M.C. Fossi, L. Marsili, C. Leonzio, G. Mori, D. Bucalossi, N. Bianchi, S. Porcelloni, I. Caliani, G. Stefanini, S. Maltese and C. Alberti di Catenaja (Italy)
- 12:20-12:35 Lysosomal structure and function in (hepto)pancreas of flounder and mussel as prognostic biomarkers for chemically-induced histopathologies  
A. Koehler (Germany)
- 12:35-12:50 Potential fumonisin-producers in traditional African vegetables  
A.M. van der Walt, E. van der Linde and C.C. Bezuidenhout (South Africa)
- 12:50-13:05 Validation of mussel metallothioneine as a biomarker for heavy metals pollution  
T. Kusui, and K. Toriyama (Japan)
- 13:05-14:35 **LUNCH BREAK**

### **SESSION 3**

#### **TOXICITY OF MIXTURES- INTERACTIVE EFFECT OF CHEMICALS**

**CHAIRS: A. Kungolos and G. Nalecz- Jawecki**

- 14:35- 14:50 An overview of the models predicting the interactive effects of chemicals on aquatic organisms  
A. Kungolos, V. Tsiridis, M.D. Petala and P. Samaras (Greece)
- 14:50- 15:05 Toxicity of metals to protozoa in the presence of selected pharmaceuticals  
G. Nalecz- Jawecki, J. Sawicki (Poland)
- 15:05- 15:20 Effect of the combined action of Irgarol 1051 and three metals towards the marine algae *Cheatoceros gracilis*  
A. Koutsaftis and I. Aoyama (Japan)
- 15:20- 15:35 Biotests and biosensors in ecotoxicological risk assessment of field soils polluted with zinc, lead and cadmium  
A.Kahru, A. Ivask, K. Kasemets, L. Põllumaa, H. C. Dubourguier (Estonia)
- 15:35- 15:50 Including mixtures in the determination of water- quality criteria for pesticides  
N. Chèvre, C. Loepfe, K. Fenner, H. Singer, C. Stamm, B. I. Escher (Switzerland)
- 15:50- 16:05 Environmental risk characterization of organic chemicals used in aquaculture  
M.D. Hernando and A.R. Fernández-Alba (Spain)

**SESSION 4**

**BIODEGRADATION AND BIOREMEDIATION**

**CHAIR: G. Lyberatos**

- 16:05-16:20      Experimental and modeling study of the impact of five different xenobiotics on bacterial ammonium oxidation  
*S.N. Dokianakis, M. Kornaros and G. Lyberatos (Greece)*
- 16:20-16:35      Toxicity determination of natural seawater polluted with weathered crude oil after its enhanced biodegradation using microbial stimulants  
*M. Ruiz, M. Nikolopoulou, A. Coz, N. Pasadakis, N. Kalogerakis (Greece)*
- 16:35-17:00      **COFFEE BREAK**
- 17:00-18:00      **POSTER SESSION A**
- 18:00              **FREE EVENING TO DISCOVER SKIATHOS**

## **TUESDAY, JUNE 14**

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9:00-11:00      **REGISTRATION**

### **SESSION 5**

#### **ENDOCRINE DISRUPTING CHEMICALS**

**CHAIRS: J. L. Slabbert and E. Azizi**

- 9:00-9:15      Detection of estrogenic activity in South African surface waters and sediments using a recombinant yeast screen  
*J.L. Slabbert, E. A. Venter, T. Verslycke, B. Versonnen, K. Arijs (South Africa)*
- 9:15-9:30      Expression of cyclin D1 in tamoxifen resistant subline of human breast cancer T47D cells  
*E. Azizi, S. Fouladdel, Z. Motahari, and S. Arbabi (Iran)*
- 9:30-9:45      Characterisation of persistent and bioaccumulative estrogen and arylhydrocarbon receptor agonists  
*J. L. Balaam and K. V. Thomas (United Kingdom)*
- 9:45-10:00      Biological effects quality assurance in monitoring programmes (BEQUALM) - Progress with the self-funded scheme  
*Y. Allen, J.E. Thain, K. Hylland (United Kingdom)*
- 10:00-10:15      Assessment of novel mechanism of endocrine disruption- toxicant- induced effects on steroidogenesis in a model with H295R cell line  
*K. Hilscherova, L. Blaha, J. Novak, P. D. Jones, J. P. Giesy (Czech Republic)*
- 10:15-10:30      Brain and gonadal aromatase as potential targets for endocrine disrupting chemicals (EDCs) in a model species, the zebrafish (*Danio rerio*)  
*N. Hinfray, E. Pellegrini, O. Kah, J. M. Porcher, F. Pakdel, F. Brion (France)*
- 10:30-10:50      **COFFEE BREAK**

### **SESSION 6 A**

#### **GENOTOXICITY/ MUTAGENICITY/IMMUNOTOXICITY**

**CHAIRS: H. Florou and H. Türkez**

- 10:50-11:05      Genotoxic effects in marine invertebrates inhabiting in the areas of metallic springs in Ikaria island in Aegean Sea - Greece  
*H. Florou, V. Tsytsugina, G. Polikarpov, V. Gorbenko, C. Chaloulou (Greece)*
- 11:05-11:20      Protective effect of sodium selenite against the genotoxicity of Aflatoxin B1 in human whole blood cultures  
*F. Geyikoğlu and H. Türkez (Turkey)*
- 11:20-11:35      A search for cellular and molecular mechanisms involved in depleted uranium (DU) induced toxicity  
*J. Pourahmad, H. A. Ettehadi, M. Ghashang (Iran)*

- 11:35-11:50 The effects of p- coumaric, caffeic, and ferulic acids on the liver and erythrocytes antioxidant defense system in rats  
F. Khelifi Touhami, R. Taha, A. B. Osama, F. Hammada, and A. Lazzer (Algeria)

### **SESSION 6 B**

#### **GENOTOXICITY/ MUTAGENICITY/IMMUNOTOXICITY**

**CHAIRS: L. Manusadžianas and P. D. Hansen**

- 11:50-12:10 Effects of humic substances on Charophyte *Nitellopsis Obtusa* at the enzyme, cell membrane and cellular endpoints  
L. Manusadžianas, C. E. W. Steinberg, R. Grigutyte, S. Jurkonienė, R. Karionas, S. Pflügmacher (Lithuania)
- 12:10-12:25 Gene immune and cellular responses to single and combines space flight conditions: The Biolab- Triplex lux-B experiment- immunotoxicity effects and hemocytes of invertebrates  
P.D. Hansen and E. Unruh (Germany)
- 12:25-12:40 Evaluation of cadmium genotoxicity in *Lactuca sativa L.* using nuclear microsatellites  
M. Monteiro, C. Santos, R. M. Mann, A. M. V. M. Soares, T. Lopes (Portugal)
- 12:40-12:55 Cytotoxicity induced by indoor relevant mycotoxins in *Tetrahymena pyriformis*  
A. Müller, C. Gräbsch, N. Loffhagen, G. Wichmann, O. Herbarth (Germany)
- 12:55-13:10 Verapamil modulates the hepatotoxicity induced by Doxorubicin: A histopathological study  
N. Abidli, A. M. Osman, M. El Merzabani and N. S. Bassily (Algeria)
- 13:10-14:40 **LUNCH BREAK**

### **SESSION 7**

#### **ON LINE TOXICITY MONITORING**

**CHAIR: B. Marsalek**

- 14:40-14:55 Continual and on-line system for detection and quantification of health risks connected with cyanotoxins in raw and treated drinking water  
B. Marsalek, M. Trtílek, E. Maršálková, J. Gregor (Czech Republic)
- 14:55-15:10 Physicochemical and biological monitoring of pollutants in different Egyptian aquatic ecosystems  
S.A. Mansour (Egypt)

### **SESSION 8**

#### **LABORATORY TECHNIQUES AND FIELD VALIDATION**

**CHAIR: J. Havel**

- 15:10-15:25 Challenges of matrix assisted laser desorption TOF mass spectrometry in xenobiotics analysis  
J. Havel (Czech Republic)

- 15:25-15:40 Re-use of municipal liquid wastewaters for irrigation  
*M. Sakellariou – Makrantonaki (Greece)*
- 15:40-15:55 Application of leaching tests for the toxicity evaluation of coal fly ash  
*V. Tsiridis, P. Samaras, A. Kungolos and G. P. Sakellariopoulos (Greece)*
- 15:55-16:15 **COFFEE BREAK**
- 16:15-17:15 **POSTER SESSION B**
- 19:00-21:00 **WINE AND CHEESE PARTY, HOTEL SKIATHOS PRINCESS-TAVERNA BY THE SEASIDE**

### **WEDNESDAY, JUNE 15**

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- 9:30-22:00 **BOAT TRIP TO SKOPELOS AND ALONNISOS ISLANDS, INCLUDING LUNCH AND DINNER**

## THURSDAY, JUNE 16

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9:00-11:00      **REGISTRATION**

### **SESSION 9**

#### **RISK/ HAZARD EVALUATION**

**CHAIRS: R. Scroggins and K. W. Schramm**

- 9:00-9:20      Assessing the fate and effects of microbial substances in soil  
*R. Scroggins, J. Princz, M. Providenti and S. Hynes (Canada)*
- 9:20-9:35      An *in vitro* model for screening estrogenic activity of Bisphenol-A after metabolism  
*K.W. Schramm, N. Chahbane (Germany)*
- 9:35-9:50      Interest of artificial streams in environmental risk assesment of chemicals  
*S. Coffinet, C. Cossu- Leguille, A. Bassères, P.Vasseur (France)*
- 9:50-10:05      Assessment of atmospheric dioxins dissemination using a fuzzy decision support system  
*F. Lefkaditis, A. Tocatlidou and G. Arapis (Greece)*

### **SESSION 10 A**

#### **TOXICITY ASSESSMENT OF COMPLEX LIQUID AND SOLID WASTES**

**CHAIRS: D. Mamais and D. Nugegoda**

- 10:05-10:20      Evaluation of alternative methods for toxicity measurements of activated sludge cultures  
*D. Mamais, C. Noutsopoulos, N. Kouris and A. Sakellariou (Greece)*
- 10:20-10:35      Low concentrations of agrochemicals in the environment: Are they safe?  
A case study of Chlorpyrifos and Glyphosate  
*L. Zalizniak and D. Nugegoda (Australia)*
- 10:35-10:50      Histopathological responses of Nile Tilapia, *Oreochromis niloticus* to contaminated sediments of Mae Klong river tributaries, Thailand  
*P. Peebua, M. Kruatrachue, P. Pokethitiyook, P. Kosiyachinda, and W. Trinachartvanit (Thailand)*
- 10:50-11:05      Distribution and accumulation of heavy metals in water, sediment and aquatic organisms in the river basin of central Thailand  
*P. Pokethitiyook, R. Bunsong, M. Kruatrachue, and S. Upatham (Thailand)*
- 11:05-11:20      **COFFEE BREAK**

## **SESSION 11**

### **AQUATIC AND TERRESTRIAL APPLICATION STUDIES WITH (MICRO)BIOTESTS**

**CHAIRS: C. Blaise and G. Persoone**

- 11:20-11:40 Toxic effects of selected pharmaceuticals emitted to the St- Lawrence river from a major municipal wastewater source (Montreal, Que, Canada)  
*C. Blaise, P. Pavlova, F. Gagné, R. Tardif and M. Harwood (Canada)*
- 11:40-11:55 Recent new microbiotests for cost-effective toxicity monitoring: The Rapidtoxkit and the Phytotoxkit  
*G. Persoone (Belgium)*
- 11:55-12:10 Tire wear toxicity- Variability and toxic components  
*A. Wik and G. Dave (Sweden)*
- 12:10-12:25 Ecotoxicological monitoring of raw and finished water by bioluminescent bacteria *Vibrio fischeri*  
*D. Koronakis, Z. Melabianaki, E. Smeti, L. Kousouris (Greece)*
- 12:25-12:40 The use of integrative methods for marine sediment toxicity/ risk assessment in the Spanish estuaries: A case of study  
*M. J. Belzunce, J. Franco, V. Pérez, M. Revilla, I. Muxika, A. Borja. (Spain)*
- 12:40-12:55 Cost- effective ecotoxicity testing of environmental samples  
*K. Wadhia (UK)*
- 12:55-13:10 *In vitro* tests as a screening tool in ground water pollution assessment  
*R. Weltens, G. Schoeters, C. Cornelis, J. Bierkens, H. Witters (Belgium)*
- 13:10-13:25 Acute and chronic toxicity of dredged sediments to *Nitocra spinipes*  
*A. S. Wernersson, S. Jaakkola, A. L. Almgren (Sweden)*
- 13:25-15:00 **LUNCH BREAK**

## **SESSION 10 B**

### **TOXICITY ASSESSMENT OF COMPLEX LIQUID AND SOLID WASTES**

**CHAIRS: C. Samara and P. Samaras**

- 15:00-15:15 Ecotoxicological evaluation of the treatment process in the wastewater treatment plant of Thessaloniki, Greece  
*A. Katsoyiannis and C. Samara (Greece)*
- 15:15-15:30 Monitoring of industrial effluent ecotoxicity in the greater area of Thessaloniki  
*A. Soupilas, Ch. Papadimitriou, D. Papastergiou, P. Samaras, G.P. Sakellaropoulos (Greece)*
- 15:30-15:45 The effect of advanced treatment on the toxicity of municipal secondary effluents  
*M.D. Petala, P. Samaras, A. Zouboulis, A. Kungolos and G. P. Sakellaropoulos (Greece)*

- 15:45-16:00 Effluent toxicity testing in Ireland  
*R. Hernan, J. O' Neil and K. O' Rourke (Ireland)*
- 16:00-16:15 Toxicity reduction of certain industrial effluents by activated sludge  
*C. Papadimitriou, P. Samaras, G. P Sakellaropoulos (Greece)*
- 16:15-16:30 Toxicity assessment of reference and natural freshwater sediments with the Luminotox assay  
*P. M. Dellamatrice, R. T. R.. Monteiro, C. Blaise (Canada)*
- 16:30-16:50 **COFFEE BREAK**
- 16:50-17:50 **POSTER SESSION C**
- 21:00-24:00 **BANQUET, HOTEL PANORAMA, KOUKOUNARIES, SKIATHOS**

## FRIDAY, JUNE 17

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9:00-11:00      **REGISTRATION**

### **SESSION 12**

#### **NEW MICROSCALE TECHNIQUES TO MEASURE CONTAMINANT EFFECTS**

**CHAIRS: J.F. Férard and J. Stauber**

- 9:00-9:15      Selecting a battery of tests from multivariate analyses for assessment of waste toxicity  
*J.F. Férard, J. Devillers, A. M. Charissou, M. J. Jourdain, P. Pandard, and V. Poulsen (France)*
- 9:15-9:30      Toxicity of 4-Nonylphenol on the cnidarian *Hydra attenuata* and environmental risk assessment  
*S. Pachura, C. Blaise, P. Vasseur (France)*
- 9:30-9:45      Development and application of aquatic and sediment microalgal toxicity tests using flow cytometry  
*J. Stauber, M. S. Adams and N. M. Franklin (Australia)*
- 9:45-10:00      Development of a rapid microbial toxicity assay employing ferricyanide as an artificial respiratory electron acceptor  
*K. Catterall, R. John, P. Teasdale, D. Welsh (Australia)*
- 10:00-10:15      Assessment of biological effects of PFW effluent from Harriet a platform on the northwest shelf of Australia  
*S. Codi King, L. Howitt, C. E. Bennett, M. L. Haasch, S. Zhu, J. Mondon, J. Mueller, C. McLean, C. Humphrey, M. Shaw (Australia)*

### **SESSION 13**

#### **BIOLOGICAL CONTAMINANTS: MICROTECHNIQUES FOR DETECTION OF GMOs AND TRANSGENES**

**CHAIR: C. Israilides**

- 10:15-10:30      Evaluation of possible gene transfer from transgenic plants to bacteria of *azotobacter* species  
*D. Argyropoulos, C. Psallida and C. Israilides (Greece)*

10:30-10:50      **COFFEE BREAK**

### **SESSION 14**

#### **HAZARDOUS WASTE MANAGEMENT**

**CHAIRS: I. Aoyama and E. Gidarakos**

- 10:50-11:05      Hazard evaluation for intermediate treatment residues of medical solid wastes  
*I. Aoyama, P. Mingyu and M. Tanaka (Japan)*
- 11:05-11:20      Toxicity evaluation for the broad area of the asbestos mine of Northern Greece  
*E. Gidarakos and K. Anastasiadou (Greece)*

- 11:20-11:35 Eight rapid water security technologies independently verified  
*K.R. Hayes (USA)*
- 11:35-11:50 Potential toxicity of ferrous-nickel slag after sandblasting operations  
*E. Cotou, H. Kaberi, A. Papageorgiou and C. Tsangari (Greece)*

### **SESSION 15**

#### **BIOTESTING AND ENVIRONMENTAL CONTROL STRATEGY**

**CHAIR: A. Karagiannidis**

- 11:50-12:05 Locational and environmental characteristics of waste disposal sites in the prefecture of Evros  
*A. Karagiannidis, T. Tsatsarelis, G. Perkoulidi., M. Theodoseli and B. Mavridis (Greece)*
- 12:05-12:20 Inventory of the accumulated pollution in the uncontrolled landfill of Efkarpia  
*P. Rakimbei, K. Tzafeiropoulou, A. Karagiannidis, C. Tsiouvaras, V. Tsiridis, P. Samaras, V. Keramidas, and A. Nastis (Greece)*
- 12:20-13:20 **POSTER SESSION D**
- 13:20-14:20 **LUNCH BREAK**
- 14:20-15:25 **POSTER DISCUSSION (POSTER SESSION A, B, C, D)**  
**MODERATOR: C. Blaise (Canada)**  
**Discussion of Poster Session A:**  
15-min report  
**Discussion of Poster Session B:**  
15-min report  
**Discussion of Poster Session C:**  
15-min report  
**Discussion of Poster Session D:**  
15-min report  
**Wrap- up by MODERATOR**  
5-min
- 15:25-15:45 **COFFEE BREAK**
- 15:25-16:00 **Meeting of ISTA 12 Scientific Committee**
- 16:00-17:00 **CLOSE OF SYMPOSIUM AND PRESENTATION OF AWARDS OF EXCELLENCE**

## **POSTER PRESENTATIONS**

### **POSTER SESSION A: MONDAY, JUNE 13**

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#### **CYANOBACTERIAL TOXINS- FRESHWATER ISSUES**

- A1 Detection of mycotoxins with MALDI TOF MS in barley and consecutive food products  
*J. Havel, P. Blechová, D. Gajdošová, and P. Havlová (Czech Republic)*
- A2 Fish and heavy metals: behavioral avoidance as an indicator of environmental pollution  
*G. Svecevičius (Lithuania)*
- A3 Biochemical changes in aquatic organisms in response to PAHs and their N-heterocyclic derivatives  
*M. Feldmannová, K. Hilscherová, L. Bláha, B. Maršálek, I. Holoubek (Czech Republic)*
- A4 Toxic elements in the groundwater in the area of Larisa (Greece)  
*I. Pappas, E. Dovriki, P. Plageras, A. Noulas, K. Kakavas and A. Papaioannou (Greece)*
- A5 PAHs level in seawater of the Seto inland sea and the Pacific Ocean near West Japan  
*Y. Nogami, M. Miyanaga, H. Okamura and Y. Yano (Japan)*

#### **BIOMARKERS AND BIOSENSORS**

- A6 Effects of transport and acclimation conditions on biomarkers of an estuarine fish *Pomatoschistus microps*  
*D. Querido, M. Monteiro, C. Quintaneiro, L. Guilhermino, F. Morgado, A. M.V.M. Soares (Portugal)*
- A7 Biomarkers as a tool to investigate toxicological effects of produced waters  
*M. Ferraro, M.C. Fossi, L. Marsili, S. Casini, G. Mori, D. Bucalossi, S. Porcelloni, I. Caliani, G. Stefanini & C. Alberti di Catenaja (Italy)*
- A8 Prawn (*Palaemon serratus*) cholinesterase activity as a potential biomarker  
*F. Frasco, D. Fournier, F. Carvalho, L. Guilhermino (Portugal)*
- A9 Biochemical biomarkers as a tool to assess aquatic pesticide contamination using the midge *Kiefferulus calligaster* (Kieffer)  
*I. Domingues, A. M. V. M. Soares, A. J. A. Nogueira, L. Guilhermino (Portugal)*
- A10 Measuring enzymes activities in marine fish exposed to C<sub>12</sub>-2-linear alkylbenzene sulfonate. Possible use as biomarkers  
*D. Álvarez-Muñoz, J. Blasco, A. Gómez-Parra, E. González-Mazo (Spain)*
- A11 Biomarkers in *Spirodela oligorrhiza* for the assessment and monitoring of water quality  
*Z. B. Romanowska-Duda, M. Grzesik, H. M. Kalaji, R. J. Strasser (Poland)*

## TOXICITY OF MIXTURES- INTERACTIVE EFFECT OF CHEMICALS

- A12 Morphine-induced hyperthermia in rats: interactions with GABAergic agents  
*R. Nikolov, D. Ferdinandov, K. Yakimova (Bulgaria)*
- A13 The GISTP1 polymorphisms correlates with changes in expression of P53 tumor suppressor gene in cutaneous basal cell carcinoma  
*M. H. Ghahremani, H. Gorji, N. Shahbazi, S. M. Tavangar, A. Firooz (Iran)*
- A14 Biochemical responses in *Xenopus laevis* embryos to N- heterocyclic derivatives of polycyclic aromatic hydrocarbons  
*B. Burýšková, K. Hilscherová, L. Bláha, B. Maršálek, I. Holoubek (Czech Republic)*
- A15 Erod measurements in fish prolarvae: a non destructive short term assay  
*P. Noury and J. Garric (France)*
- A16 The use of immunofluorescence technique in the evaluation of presence of CYTP450 and ER receptor in cetaceans fibroblast cell cultures  
*L. Marsili, M. C. Fossi, S. Casini, D. Bucalossi, and S. Porcelloni (Italy)*
- A17 Deltamethrin induces suppression of humoral immune functions in Swiss albino mice  
*H.U. Rehman, S. Raisuddin (India)*
- A18 Ultrarapid quantitation of clobazam and its major metabolite in human plasma  
*M.R. Rouini, Y. H. Ardakani, L. Hakemi, M. Mokhberi and Gh. Badri (Iran)*
- A19 Risk assessment of arsenic exposure caused by consumption of cultured milkfish (*Chanos chanos*) from the arsenic- contaminated area in Southwestern Taiwan  
*M. C. Lin, S. Y. Lin (Taiwan)*
- A20 Effects of pulsed electric fields on DNA of human lymphocytes  
*J. Delimaris, S. Tsilimigaki, N. Messini-Nicolaki, E. Ziros, S.M. Piperakis (Greece)*
- A21 Testing hydrophobic chemicals with aquatic organisms  
*V. Croce, S. Galassi, R. Bettinetti, D. Hala and S. Jobling (Italy)*

## POSTER SESSION B: TUESDAY, JUNE 14

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### BIODEGRADATION AND BIOREMEDIATION

- B1 Biodegradation and bioremediation of Greek agroindustrial waste with use of edible white-rot fungi  
*C. Israilides, D. Iconomou, A. Philippousis, M. Bocari, P. Diamantopoulou, D. Arapoglou, D. Pitsoli, and N. Agelakis (Greece)*
- B2 Evaluation of textile dyes photocatalytic degradation efficiency using a toxicity assay  
*E. Bizani and K. Fytianos (Greece)*

- B3 Biotransformation of hydrocortisone by *Nostoc ellipsosporum*  
H. Niknahad, A. Dehshahri, A. Ghasemian, Y. Ghasemi, M. Tabatabaei Yazdi  
(Iran)

#### ENDOCRINE DISRUPTING CHEMICALS

- B4 The role of nitric oxide synthase (NOS) expression in the proliferation of 17  $\beta$ -estradiol treated wild type and tamoxifen resistant T47D breast carcinoma cells  
S. N. Ostad and M.E. Sharifzadeh (Iran)
- B5 Differential expression of TS and TP in tamoxifen resistant subline of human breast cancer T47D cells  
S. Fouladdel, Z. Motahari, S. Arbabi, and E. Azizi (Iran)
- B6 Effects of colloidal bismuth subcitrate on the frequency of sister chromatid exchanges in human lymphocytes  
H. Türkez, A. Tatar, F. Geyikoglu (Turkey)
- B7 Application of *in vitro* bioassay for study of dioxin-like activity of humic acids  
M. Bittner, J. Janošek, L. Bláha, K. Hilscherová, I. Holoubek and J. P. Giesy  
(Czech Republic)
- B8 Toxicity of endocrine disrupting chemicals (estradiol and nonylphenol)  
N. Dorabawila, T. Booker, G. Gupta and E. Bass (USA)
- B9 Toxicokinetic approach for the assessment of endocrine disruption effects of contaminated dredged material using female *Carcinus maneus*  
M.L. Martín-Díaz, N. Fernández, D. Sales and Á. DelValls (Spain)
- B10 Hepatoprotective and antioxidant properties of Algerian variety of *Centraurea incana* (asteracea) against CCL 4- induced liver toxicity in rats  
F. Khelifi Touhami, A. B. Osama, F. Benayache, S. Benayache (Algeria)

#### GENOTOXICITY/ MUTAGENICITY/IMMUNOTOXICITY

- B11 Cytotoxicity and oxidative stress caused by chemicals adsorbed on particulate matter  
A. Müller, L. Massolo, M. Rehwagen, C. Gräbsch, N. Loffhagen, G. Wichmann, O. Herbarth, A. Ronco (Germany)
- B12 Estrogenic activity of biofilms and aquatic plants collected in STP and receiving water  
T. Schultis, A. Kern, J. W. Metzger (Germany)
- B13 Genotoxicity effect of dermal exposure to coal tar and UV radiation  
Z. Fiala, L. Borska, M. Cerna, A. Pastorkova, J. Smejkalova, K. Hamakova, J. Kremlacek (Czech Republic)
- B14 GFP assay as a sensitive eukaryotic screening model to detect toxic and genotoxic activity of azaarenes  
T. Bartoš, S. Letzsch, M. Škarek, Z. Flegrová, P. Čupr, I. Holoubek  
(Czech Republic)

B15 Time course analysis of cyclooxygenase-2 (COX-2) expression in spatial memory retention in rats  
M. Sharifzadeh, M. Tavasoli, M. Amini, S. N. Ostad (Iran)

B16 Modern studies on residues and neurotoxicity as identified in fillet samples of Caspian sturgeons species and sediments from the Caspian Sea – preliminary results  
G. Huschek, P. D. Hansen, M. Pourkazemi, H. Rosenthal and B. Fischer (Germany)

B17 Phytomanagement of aged PAH-polluted soils during three years: assessment of mutagenicity and toxicity  
K. Kasemets, L. Põllumaa, H.C. Dubourguier, and A. Kahru (Estonia)

### **LABORATORY TECHNIQUES AND FIELD VALIDATION**

B18 The development of a multi-trophic battery of bioassays for the ecotoxicological evaluation of Irish marine sediments  
A. Macken, B. Foley, M. Giltrap, L. Tyrell, M. Cronin, B. McHugh, E. McGovern, M. Davoren (Ireland)

B19 Toxicity evaluation of the antifouling biocide diuron and its final metabolite 3,4-dichloroaniline using phytoplankton  
G. Gatidou, K. Athanasaki, A. Kotrikla, N. S. Thomaidis and T.D. Lekkas (Greece)

B20 Assessing the potential of fish cell lines as tools for the ecotoxicological evaluation of Irish marine sediments  
M. Davoren, B. Foley, M. Giltrap, L. Tyrell, M. Cronin, B. McHugh, E. McGovern (Ireland)

B21 The regulatory use of bioassays for effluent control- direct toxicity assessment (DTA) prioritisation of industrial discharges  
D. Leverett (UK)

B22 Chemical and toxic evaluation of wet and dry deposition samples from urban and industrial areas  
S. Vratolis, K. Eleftheriadis, A. Kungolos (Greece)

B23 Contamination of sewage sludges and fishes with polybrominated diphenyl ethers  
C. Schneider, B. Kuch and J.W. Metzger (Germany)

B24 Oxidative damage and repair induced in mussel (*Mytilus edulis* L.) gill from a contaminated site  
C. Emmanouil, D. J. Smart and J. K. Chipman (UK)

B25 Comparing *in vitro* toxicity of agrochemicals contaminating reservoirs with lake management herbicides  
W. Trinachartvanit, J. L. Freeman, B. M. Francis., and A. L. Rayburn (Thailand)

- B26 The use of passive air sampling and reporter gene test for genotoxic potential evaluation of the urban air in Brno  
*Z. Flegrová, T. Bartoš, P. Čupr, P. Růžičková, J. Klánová and I. Holoubek (Czech Republic)*
- B27 Toxic metals in fine particles of urban aerosol  
*A.A. Karanasiou, P. A. Siskos and K. Eleftheriadis (Greece)*
- B28 Mercury, methylmercury and selenium tissue levels in bottlenose dolphin, short-finned pilot whale and sperm whale, from the Canary islands  
*M. Carballo, F. Esperón, M. J. Muñoz, A. Fernández, S. Aguayo, E. M. Sierra and A. de la Torre (Spain)*

## **POSTER SESSION C: THURSDAY, JUNE 16**

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### **RISK/ HAZARD EVALUATION**

- C1 Risk evaluation of multichemical exposures at industrial emergencies  
*L. Borska, Z. Fiala, T. Borsky, A. Vyskocil, J. Kremlacek (Czech Republic)*
- C2 The measurements of bacterial populations in the intestinal tract of hydrobiont as component of contaminated site assessment  
*J. Šyvokienė, L. Mickėnienė (Lithuania)*
- C3 A first step of risk assessment in a semi-controlled landfill: Case study in municipality of Chalastra in Greece  
*A. Karagiannidis, A. Kouras, G. Perkoulidis, P. Rakimbei and T. Tsatsarelis (Greece)*
- C4 A multi-criteria and fuzzy logic based methodology for the relative ranking of the hazard of chemical substances and installations  
*A. N. Paralikas, A.I. Lygeros (Greece)*
- C5 Risk assessment of a MSW landfill using a fuzzy GIS- based decision support system  
*E. Alexiou, T. D. Kontos and C. P. Halvadakis (Greece)*

### **AQUATIC AND TERRESTRIAL APPLICATION STUDIES WITH (MICRO)BIOTESTS**

- C6 Radioactivity concentrations in sediments and their correlation to the coastal structure in Northern coast of Persian Gulf  
*J. Pourahmad, A. A. Motallebi (Iran)*
- C7 Isolated (PECs) and whole (algae) photosynthetic systems used in combination as rapid screening tests for the evaluation of wastewater toxicity  
*F. Bellemare, M. E. Rouette, L. Lorrain, É. Perron and N. Boucher (Canada)*
- C8 Modified isobologram method as appraised to predict HM mixture toxicity to algal cell  
*L. Manusadžianas, K. Sadauskas, R. Vitkus (Lithuania)*

- C9 Toxicity assessment of the sediments around dockyards using marine algal test  
*H. Mieno and H. Okamura (Japan)*
- C10 Identification of persistent, bioaccumulative and toxic (PBT) substances in North Sea produced water discharges  
*J.L. Balaam, R. A. Dyer, W. J. Reynolds and K. V. Thomas (UK)*
- C11 Use of a test battery for evaluation of sodium dodecil sulfate (SDS) acute toxicity in the marine environment  
*O. Faraponova, A. Tornambè, L. Mariani, A. Sarni, S. Giuliani, D. De Pascale, G. Ruggiero, F. Onorati & E. Magaletti (Italy)*
- C12 European ring exercise on water toxicity using different bioluminescence inhibition tests based on *Vibrio fischeri*, in support to the implementation of the water framework directive  
*M. Farré, E. Martínez, M. D. Hernando, A. Fernández-Alba, J. Fritz, E. Unruh, O. Mihail, V. Sakkas, T. Albanis, A. Morbey, P.D. Hansen, D. Barceló (Greece)*
- C13 Fate and effects of 2,4,6-trinitrotoluene (TNT) from dumped ammunition in a field study with fish and invertebrates  
*H. Ek, G. Dave, E. Nilsson, J. Sturve, G. Birgersson (Sweden)*
- C14 *In situ* ecotoxicity testing as a tool to assess pesticide effects in multiuse aquatic systems in Thailand  
*I. Domingues, K. Satapornvanit, C. Critchlow-Watton, A. J. A. Nogueira, A. Yakupitiyage, G. Taylor, W. Davis, S. Phommakone, S. Ruangsuksut, K. Charngthark, and S. Kaneshalingam (Portugal)*
- C15 Comparison of the Phytotoxkit<sup>tm</sup> microbiotest and chemical variables for toxicity evaluation of sediments  
*I. Czerniawska-Kusza, A. Cichon, T. Ciesielczuk, G. Kusza (Poland)*
- C16 Ecotoxicological evaluation of groundwater in Estonian oil-shale region  
*L. Põllumaa, L. Bitjukova, J. E. Sorlie, and A. Kahru (Estonia)*

#### **TOXICITY ASSESSMENT OF COMPLEX LIQUID AND SOLID WASTES**

- C17 The protective effect of allium sativum on doxorubicin induced cardiotoxicity  
*N. Abidli, A.M. Osman, M. El Merzabani, N.S. Bassily (Algeria)*
- C18 The use of a mode of action based test battery to monitor surface water quality  
*N. Chèvre, R. Behra, R.I.L. Eggen, S. Rutishauer, N. Schweigert, B. I. Escher (Switzerland)*
- C19 Sediment quality assessment using the sea-urchin embryobioassay: Comparison between acute and chronic oil-spill exposed areas  
*N. Fernández, A. Cesar, T.A. Del Valls (Spain)*
- C20 Contamination and toxicity assessment of sediments in Santos and São Vicente estuarine and harbour system  
*A. Cesar, C. D. S. Pereira, D. M. Abessa, N. Fernandez, T. A. Del Valls (Spain)*

- C21 Toxicity reduction of metal pyrrhionones by near ultraviolet irradiation  
*H. Okamura, N. Kobayashi, M. Miyanaga, and Y. Nogami (Japan)*
- C22 An examination on oxidative decomposition of estrogen-like substances using photocatalyst  
*J. Shimamura, M. Miyanaga, H. Okamura and Y. Nogami (Japan)*
- C23 Sensitivity of *Gambusia affinis* to the fungal metabolite (8R, 16R)-(-)-pyrenophorin  
*G. Vassiliou, M. Chrysayi-Tokousbalides, S. Charitoudis and K. A. Aliferis (Greece)*
- C24 The acute toxicity responses of *Dicentrarchus labrax* to diethylene glycol exposure: Introductory remarks  
*L. Mariani, A. Tornambé, E. Magaletti, F. Onorati, C. Virno Lamberti, & A.M. Cicero (Italy)*
- C24 Toxicity identification evaluation of five metals performed with two organisms (*Daphnia magna* and *Lactuca sativa*)  
*B. Fjällborg, B. Li, E. Nilsson, G. Dave (Sweden)*
- C26 Evaluation of wastewater toxicity in Trancão river basin (Portugal)  
*E. Mendonça, M.A. Morbey, S. Leitão, L. Silva, A. Picado, F. Brito, C. Cortez, I. Johnson (Portugal)*
- C27 Toxicity monitoring and classification of underground waters in the vicinity of the municipal landfills  
*A. Kuczyńska, M. Michalska, L. Wolska, J. Namieśnik (Poland)*
- C28 Ecotoxic effects in pore water samples from different soils spiked with dieldrin  
*J. Bierkens, G. Geukens, M. P. Goyvaerts, J. Lauwers, J. Maes, R. Weltens (Belgium)*

#### **POSTER SESSION D: FRIDAY, JUNE 17**

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##### **NEW MICROSCALE TECHNIQUES TO MEASURE CONTAMINANT EFFECTS**

- D1 Construction of recombinant sensor bacteria for the determination of bioavailable phenolic compounds and their application for the environmental hazard assessment of oil-shale industry pollution  
*A. Leedjäry, A. Ivask, and A. Kahru (Estonia)*
- D2 Intercalibration exercise using a stickleback endocrine disrupter screening assay  
*Y. Allen, I. Katsiadaki, T. Pottinger, C. Jolly, P. Matthiessen, I. Mayer, A.P. Scott, A. Smith, P. Eccles, S. Feist (UK)*
- D3 A remote sensing analysis with pollution monitoring tools on the Orbetello lagoon ecosystem (Italy)  
*S. Focardi, E. Franchi, M. Renzi, S. Mazzuoli, S. A. Loiselle, S. Focardi (Italy)*

## HAZARDOUS WASTE MANAGEMENT

- D4 Planning of a management scheme for sanitary waste in Miriam college  
*P. Papayno, A. Galang, A. Karagiannidis, B. Bilitewski, M. Theodoseli, J. Reichenbach and A. Janz (Philippines)*
- D5 Results from a pilot plant for recycling of construction and demolition wastes  
*M. Zygouras and A. Karagiannidis (Austria)*
- D6 Planning of composting schemes for selected communities in Greece and Vietnam  
*T. Nguyen, A. Karagiannidis, B. Bilitewski, M. Theodoseli, J. Reichenbach and A. Janz (Greece)*
- D7 Naturally occurring radioactive materials waste management of a phosphoric acid production plant  
*V. Stamatis, S. Seferlis, C. Potiriadis, V. Koukoulidou, K. Kehagia, S. Bratakos and V. Kamenopoulou (Greece)*
- D8 Environmental aspects of hazardous waste management in Greece: The case study of medical wastes  
*S. Bakopoulou and A. Kungolos (Greece)*
- D9 LIFE 02 ENV/GR/000371: municipal sewage sludge management  
*M. Zygouras (Austria)*
- D10 Medical waste management in 2<sup>nd</sup> regional health and welfare authority  
*G. Sanida, A. Karagiannidis (Greece)*
- D11 Toxicity behaviour of leachates from coal- biomass co- combustion ashes  
*G. Skodras, M. Prokopidou and G. P. Sakellaropoulos (Greece)*

## BIOTESTING AND ENVIRONMENTAL CONTROL STRATEGY

- D12 Modelling traffic pollution in the commercial center of Thessaloniki  
*N. M. Zoumakis, A. G. Kelessis, G. A. Efstathiou, D. Papas, M. J. Petrakakis and M. A. Tsougas (Greece)*
- D13 Determination of BTEX compounds in urban air of Thessaloniki  
*A.G. Kelessis, M.J. Petrakakis, N.M. Zoumakis, M.A. Tsougas and A. Kungolos (Greece)*
- D14 Formation of food vacuoles as a valuable end-point in the short-time Spirotox test  
*G. Nałęcz-Jawecki, J. Sawicki (Poland)*
- D15 Acid mine drainage in South Africa: Correlation of cyto-toxicological and chemical data  
*M. Whitcutt, L. Brown and P. van Eeden (South Africa)*
- D16 Evaluation of the fish embryo test as a potential alternative to the standard acute fish toxicity test OECD 203  
*M. Leonard, M. Vanpoucke, J. M. Porcher, V. Petit- Poulsen (France)*

- D17 Physiological responses of the germinating seeds to the toxic activity of microcystins  
G. Mieczyslaw and Z. B. Romanowska-Duda (Poland)
- D18 Multiplex PCR-based detection of potential fumonisin-producing *fusarium* in traditional African vegetables  
C. C. Bezuidenhout and A. M. van der Walt (South Africa)
- D19 Comparing the use of *Arenicola marina* and *Ampelisca brevicornis* for dredged material characterisation  
M. C. Casado-Martínez, J. M. Forja1, N. Fernández, T. Á. Del Valls (Spain)
- D20 Acute toxicity of residual fuel oil from the sinked tanker “Prestige”  
C. Morales-Caselles, L. Riba, N. Fernández, T. A. Del Valls (Spain)