Hands-on course

Harmonizing Genetic Toxicology Testing: Application of Short-Term Cytogenetic Assays

Budapest, 14 November 2009

In conjugation with the EFFoST Conference: New Challenges in Food Preservation: Processing - Safety - Sustainability

Introduction

It becomes evident that there is a direct link between higher incidence of chromosomal abnormalities (such as, chromosomal aberrations and micronucleus) and cancer. These cytogenetic assays have been standardized and validated in different systems *in vitro* and *in vivo*, and were successfully applied to elucidate the genotoxic and mutagenic potential of series of chemicals (such as, environmental pollutants, cytostatic drugs and human dietary components).

This one day course offers a wonderful opportunity to become familiar with general scope and aims of genetic toxicology, and technically to be acquainted with two established cytogenetic assays that are applicable for both basic and applied science research programs.

Course organizer:
Dr. Firouz Darroudi, Department of Toxicogenetics, Leiden University Medical Centre, Leiden, The Netherlands.

Programme:

A. Theoretical:

1. Development and validation of biological assays to detect genotoxic potential of physical and chemical agents

2. Assessment of the genotoxic, co- and anti-genotoxic potential of human dietary components using human HepG2 cells

B. Practical:

1. Cell culturing
2. Chromosome aberration assay
3. Micronucleus assay
4. Scoring criteria
5. Slides analysis
6. Final discussion

For information, contact Dr. Betty-Ann Crozier-Dodson (bethann@ksu.edu)