



ISM - MycoKey Workshop - Training Course

Rapid Methods for Mycotoxin Detection in the Food Chain

October 9-13, 2017

Institute of Sciences of Food Production (ISPA),
CNR - National Research Council of Italy, Bari

Organized by:

CNR – National Research Council,
Institute of Sciences of Food Production (ISPA)
Bari, Italy

under the aegis of the International Society for Mycotoxicology (ISM)

Instructors/Lecturers

Dr. Noredidine Aggoun (UNISENSOR, Belgium)
Dr. Annalisa De Girolamo (ISPA-CNR, Italy)
Prof. Dr. Sarah De Saeger (UGENT, Belgium)
Dr. Veronica M.T. Lattanzio (ISPA-CNR, Italy)
Dr. Vincenzo Lippolis (ISPA-CNR, Italy)
Dr. Antonio F. Logrieco (ISPA-CNR, Italy)
Dr. Chris Maragos (USDA-ARS, USA)
Ing. Claire V. Marchitti (R-BIOPHARM Italia, Italy)
Dr. Hans Mol (RIKILT-WUR, The Netherlands)
Dr. Michelangelo Pascale (ISPA-CNR, Italy)
Prof. Li Peiwu (OCRI-CAAS, China)
Dr. Gordon S. Shephard (IBMB-CPUT, South Africa)
Dr. Michael Sulyok (IFA-Tulln, BOKU, Austria)
Ir. Hans P. van Egmond (retired from RIKILT-WUR, The Netherlands)
Dr. Christoph von Holst (JRC-Geel, Belgium)
Ms. Nancy Zabe Collette (VICAM, a Waters Business, USA)

PROGRAMME

MONDAY, 9th October

9:00	Welcome address - <i>Antonio F. Logrieco</i> (Director of ISPA-CNR)
9:15	MycoKey and MyToolBox projects - <i>Antonio F. Logrieco and Michael Sulyok</i>
9:45	Introduction to the course - <i>Michelangelo Pascale</i>
10:00	Overview of toxigenic fungi and relevant mycotoxins in the food chain - <i>Antonio F. Logrieco</i>
10:45	Human and animal health effects, risk assessment and mycotoxin legislation - <i>Hans P. van Egmond</i>
11:30	<i>Coffee break</i>
12:00	Sampling and overview of methods for mycotoxin analysis - <i>Michelangelo Pascale</i>
12:45	LC-MS methods for multi-mycotoxin analysis - <i>Dr. Michael Sulyok</i>
13:30	<i>Lunch</i>
15:00	Performance characteristics and validation of confirmatory methods for mycotoxins - <i>Annalisa De Girolamo</i>
15:45	Overview of rapid methods for mycotoxin detection - <i>Chris Maragos</i>
16:30	<i>Coffee break</i>
16:50	Presentation by participants (max 5 min each)

TUESDAY, 10th October

9:00	Recent developments in (multi)mycotoxin rapid screening methods - <i>Sarah De Saeger</i>
9:45	Rapid and inexpensive mycotoxin detection: a need of developing countries - <i>Gordon Shephard</i>
10:30	Rapid and inexpensive mycotoxin detection: the Asian perspective - <i>Li Peiwu</i>
11:15	<i>Coffee break and group photograph</i>
11:45	Protocols for deoxynivalenol analysis in wheat by fluorescence polarization immunoassay and HPLC/IAC clean-up - <i>Vincenzo Lippolis</i>
12:00	Laboratory: Deoxynivalenol in wheat by fluorescence polarization immunoassay - <i>Chris Maragos, Vincenzo Lippolis</i>
13:30	<i>Lunch</i>
15:00	Laboratory: Deoxynivalenol in wheat - confirmatory analysis by IAC clean up and HPLC determination - <i>Vincenzo Lippolis, Chris Maragos</i>
	<i>Coffee break (20 min)</i>

WEDNESDAY, 11th October

9:00 Validation of screening methods for mycotoxins according to EU and AOAC guidelines - *Christoph von Holst*

10:00 Protocol for multi-mycotoxin analysis in maize by strip test immunoassay - *Noreddine Aggoun*

10:15 **Laboratory:** Protocol for multi-mycotoxin analysis in maize by strip test immunoassay - *Noreddine Aggoun, Veronica M.T. Lattanzio*
Coffee break (20 min)

13:00 Lunch

14:30 Protocol for a rapid fluorometric test for total aflatoxins in maize / Protocol for rapid strip test for total aflatoxins in maize - *Nancy Zabe Collette*

Laboratory: Rapid fluorometric test for total aflatoxins in maize / Rapid strip test for total aflatoxins in maize - *Nancy Zabe Collette, Michelangelo Pascale*

Coffee break (20 min)

THURSDAY, 12th October

9:00 Validation of LC-MS methods for screening of mycotoxins according to EU Regulation No 519/2014 - *Hans Mol*

10:00 Protocol for LC-MS method for screening of mycotoxins – *Veronica Lattanzio*

10:15 **Laboratory:** LC-MS method for screening of mycotoxins - *Veronica Lattanzio, Hans Mol*
Coffee break (20 min)

13:30 Lunch

15:00 Protocol for deoxynivalenol analysis in wheat by fast-ELISA and innovative rapid tests - *Claire V. Marchitti*

15:15 **Laboratory:** Deoxynivalenol in wheat by fast-ELISA and innovative rapid tests - *Claire V. Marchitti, Michelangelo Pascale*
Coffee break (20 min)

20:30 Workshop Dinner

FRIDAY, 13th October

9:00 Evaluation of overall results - *Christoph von Holst, Veronica Lattanzio*
Coffee break (30 min)

12:30 Questionnaire to participants for course evaluation and general discussion
Concluding remarks

13:30 Lunch