

# ICFM/ICPA workshop: Food Mycology - Taxonomy, Spoilage and Mycotoxins

**Saturday, July 16 2022**

**18.30** Get together at Biltsche Hoek Hotel, de Bilt, the Netherlands

**Sunday July 17 2022**

**Westerdijk Fungal Biodiversity Institute, Utrecht**

**08.30 – 09.30** Registration

**09.30** Welcome; Ludwig Niessen, Jos Houbraken, Rob Samson

**09.45-10.00** Emilia Rico, Su-lin Hedén and Marta Taniwaki - John Pitt in memoriam and ICFM

## **Session: Developments in methodology**

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|-------|---------------------|------------------------------------------------------------------------------------------------------------------------------|
| 10.05 | Emilia Rico         | ICFM and the update of the ISO standard enumeration of yeast and moulds                                                      |
| 10.25 | Christiane Baschien | Advances and limitations of fungal metabarcoding                                                                             |
| 10.55 | Christopher Magro   | From orchard to post-harvested <i>Bambinella</i> fruit: a fungal spore assessment through conventional and molecular methods |

**11:15** Break

## **Session: Fungal communities and ecology**

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|-------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 11.40 | Jens C. Frisvad    | Different fungal species are associated to different parts of plants                                                                     |
| 12.00 | Grzegorz Ostrowski | Microbial communities of the dry aged beef                                                                                               |
| 12.20 | Naresh Magan       | Ecology and control of <i>Aspergillus flavus</i> and aflatoxin B1 in chilli powder and whole red chillies using food-grade preservatives |
| 12.40 | Marta Taniwaki     | Fungal communities and potential for mycotoxin production in Brazilian cassava tubers and food                                           |

**13.00** Lunch

## **Session: Mycotoxins**

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|-------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 14.00 | Esther Garcia-Cela   | Characterisation of the emerging mycotoxigenic pathogen <i>Fusarium asiaticum</i> through genome sequencing by Oxford Nanopore technology     |
| 14.20 | Angel Medina         | Impact of environmental conditions and predicted climate change factors on <i>Fusarium asiaticum</i> growth and mycotoxin production in wheat |
| 14.40 | Markus Schmidt-Heydt | AflaZ - new safety aspects on aflatoxin producing fungi in maize fields near Nairobi/Kenya                                                    |
| 15.00 | Endang S. Rahayu     | Current food safety status in Indonesia                                                                                                       |

**15.20** Break

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|-------|---------------------|----------------------------------------------------------------------------------------------------------|
| 15.50 | Sofía Noemí Chulze* | Biocontrol strategy at pre-harvest stage for reducing AFB1 in maize during storage in Argentina (online) |
| 16.10 | María A. Pavicich   | Does <i>Alternaria</i> mouldy core infection of apple favour mycotoxin accumulation?                     |
| 16:30 | Jens C. Frisvad     | 3-Nitropropionic acid is an emerging important mycotoxin                                                 |

**17.00 – 17.45** Poster session

**18.30** Dinner

## Monday 18 July 2022

### Session: Taxonomy of food borne fungi

- 09.00 Rob Samson In memoriam John Pitt and his contribution to the International Commission of *Penicillium* and *Aspergillus*
- 09.20 Jens C. Frisvad Revitalization of phenotypic taxonomy in *Aspergillus*, *Penicillium* and *Talaromyces*
- 09.40 Pedro Crous *et al.* A taxonomic overview of *Fusarium*
- 10.00 Monika Coton New insights on the unexpected diversity of *Nectriaceae* species in cheese and a glimpse at their functional diversity
- 10:20 František Sklenář Implementation of species delimitation methods in *Aspergillus*

### 10.40 Break

- 11.00 Roya Vahedi *Aspergillus* section *Terrei*: Taxonomic status and antifungal susceptibility profiles
- 11.20 Paul Dyer Relevance of sexual states to modern taxonomy and food mycology, insights from *Aspergillus* species
- 11.40 Jos Houbraken New diversity in *Aspergillus* and *Penicillium*

### Session: Biocontrol and processing

- 12.05 Elettra Berni Effect of gaseous ozone and ozonized water against food-spoiling filamentous fungi on stainless steel
- 12.25 Masja Nierop Groot Impact of (mild) processing on food spoilage fungi

### 12.50 Lunch

- 13:45 Donato Magistà\* Studies on the efficacy of electrolysed oxidising water to control *Aspergillus carbonarius* and ochratoxin A contamination on grape (online)
- 14:05 Gemma Castellà Non-ochratoxigenic black aspergilli as biological control agents
- 14:25 Naresh Magan Effect of ozone treatment of different commodities: relative control of germination, growth and mycotoxin production by *Aspergillus* and *Fusarium* species
- 14.45 Emmanuel Coton Biotic and abiotic factors impact the efficacy of antifungal biocides used in the dairy industry

### 15.05 Break

### Session: Food fermentation

- 15.30 Seung-Beom Hong The role of indigenous meju fungi for fermented soybean products
- 15.50 Giancarlo Perrone *Penicillium* genome project: the case of Italian strains from fermented food
- 16.10 Vasilis Valdramidis Optimisation of koji production from a simulant system to rice and its association with flavour enhancement
- 16.30 Kap-Hoon Han Fermentation of Korean traditional meju using GRAS fungal strains
- 16.50 Ewen Crequer Adaptive differences between *Penicillium roqueforti* cheese and "non-cheese" populations

ICFM commission meeting (closed)

Dinner

**Tuesday 19 July 2022**

**Session: Physiology of food spoilage fungi**

- 9.00 Jan Dijksterhuis The fungal spore; tales of beginnings  
9.25 Tom van den Brule Intraspecific variability in conidial heat resistance of food spoilage fungi  
9.50 Miloslava Kavková The interactions among isolates of *Lactiplantibacillus plantarum* and dairy yeast contaminants: towards biocontrol applications  
10.15 Sjoerd Seekles Natural variation and the role of Zn2Cys6 transcription factors SdrA, WarA and WarB in sorbic acid resistance of *Aspergillus niger*

**10.40 Break**

- 11.10 Maarten Punt High sorbic acid resistance of *Penicillium roqueforti* is mediated by the SORBUS gene cluster  
11.35 Harry Harvey Preservative resistance of spoilage yeasts at low glucose and relevance for reduced-sugar formulations  
12.00 Joe Violet Inoculum size matters: relationship between preservative MIC and heteroresistance in spoilage yeasts

Closing of the workshop

**13:00 Lunch**

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**Posters**

- Dana Tančinová Microscopic fungi causing cherry tomato rot in stores  
Gemma Castellá Diversity of non-ochratoxigenic strains of *Aspergillus* section *Nigri* from Spanish grapes  
Manuela Zdravec Diversity of *Penicillium* and *Aspergillus* species isolated from traditional meat products of different regions in Croatia  
Marina V. Copetti Biofilm formation by fungi relevant in matured meat production  
Massimo Cigarini *Aspergillus montevicensis*: how much does its heat-resistance increase in low-aw foods?  
Monika Coton Dynamic changes in Champagne mycobiota diversity from vine to wine  
Naresh Magan Climate change and acclimatization of *A. flavus* strains influences colonisation, biosynthetic gene expression and aflatoxin B1 production by *Aspergillus flavus* in vitro and in raw pistachio nuts  
Nicolas Nguyen Van Long Rapid flow cytometry methodology for airborne fungal conidia enumeration  
Sjoerd Seekles The effect of cultivation temperature on the heat resistance of *Aspergillus niger* conidia  
Zuzana Barboráková Micromycetes responsible for the decay of strawberries and blueberries in Slovak supermarkets  
Zuzana Mašková Fungal agents of table grape spoilage in the retail network and their toxigenic potential