

ASM 2018 SCIENTIFIC PROGRAMME
24 – 27 JUNE 2018, MOMBASA, KENYA, AFRICA

SUNDAY 24 JUNE 2018

17H00 – 19H00 Registration, Meet and Greet (Bahari terrace, Leisure Lodge Resort)

MONDAY 25 JUNE 2018

07H30 – 08H45 Registration

**SESSION THEME: CONTINENTAL AND INTERNATIONAL COLLABORATION ON
MYCOTOXIN RESEARCH (CHAIRPERSON: ALTUS VILJOEN)**

09H00 – 09H10 Welcome address Bradley Flett (Agricultural Research Council, Grain Crops)

09H10 – 09H40 Plenary talk VIP to be announced

09H40 – 10H10 Keynote R. Krska and A.F. Logrieco, Case studies for international collaborations: the key to detect, control and reduce mycotoxins in the food chain.

10H10 – 10H30 COFFEE/TEA AND POSTER VIEWING

10H30 – 11H00 Keynote A. Moretti, N. Cito, and A.F. Logrieco, Communication and dissemination: two key aspects for a more efficient mycotoxin management at worldwide level: the MycoKey approach.

11H00 – 11H30 Keynote F. Stepman, Scaling-up the impact of aflatoxin research in Africa. The role of social sciences.

11H30 – 12H00 Keynote S. Muchiri, Mitigating mycotoxin contamination in Africa food and feed chains – farmers perspective.

12H00 – 12H20 A.F. Logrieco and A. Moretti, The MYCOTOX CHARTER: awareness for harmonizing efforts and regulations worldwide.

12H20 – 12H40 Y.Y. Gong, Agricultural and Food-system Resilience: Increasing Capacity and Advising Policy (GCRF-AFRICAP program funded by the UK Government).

12H40 – 13H00 General discussion/Summary by session chairperson

13H00 – 14H00 LUNCH

SESSION THEME: MYCOTOXIN DETECTION METHODS FOR AFRICA

(CHAIRPERSON: MARTHE DE BOEVRE)

14H00 – 14H30 Keynote S. De Saeger, Advancements and technologies in the (bio)analyses of mycotoxins.

14h30 – 14H50 Z. Skhosana, M. Motlanthe and H. Meyer, Evaluation of commercial screening kits for the determination of mycotoxins in maize in non-laboratory environments.

14H50 - 15H10 L. Sibanda, M. Plotan, R. Devlin, M. De Boevre, J. Porter and S. De Saeger, Application of the Biochip Array Technology in the multiplexed detection of 10 mycotoxins in maize, wheat, sorghum and feed matrices simultaneously.

15H10 – 15H20 General discussion/Summary by session chairperson

15H20 – 15H30 MICROSEP PRESENTATION

15H30 – 16H00 COFFEE/TEA AND POSTER VIEWING

SESSION THEME: MYCOTOXIN MANAGEMENT IN AN AFRICAN CONTEXT

(CHAIRPERSON: PATRICK NJOBH)

16H00 – 16H30 Keynote R.C.N. Rachaputi and Y. Chauhan, Applied research to minimise aflatoxin contamination in peanut and maize.

16H30 – 16H50 R. R. Madege, S. Landschoot, M. E. Kimanya, B. Tiisekwa, B. De Meulenaer, B. Bekaert, K. Audeneart and G. Haesaert, Timely sowing and harvesting effective measure to reduce stalk borer injury, *Fusarium verticillioides* incidence and associated fumonisin production in maize.

16H50 – 18H50 Break away session: MYTOX-SOUTH

- **MYTOX-SOUTH: an intercontinental partnership on mycotoxin mitigation: who, what and how? by Dr. Marthe De Boevre**
- **MYTOX-SOUTH: testimonials on success stories by Dr. Melody Ndemera, Richard Madege and Dr. Limbikani Matumba**
- **Panel Discussion: mycotoxins in a changing world moderated by François Stepman**

19H00 – DINNER

TUESDAY 26 JUNE 2018

SESSION THEME: MYCOTOXIN MANAGEMENT IN AN AFRICAN CONTEXT

(CHAIRPERSON: PATRICK NJOBEH)

08H00 – 08H30 Keynote H. Hassan-Wassef, Mycotoxins: Are profit oriented control measures leaving out domestic health concerns?

08H30 – 08H50 R. R. Madege, S. Landschoot, M. E. Kimanya, B. Tiisekwa, B. De Meulenaer, B. Bekaert, K. Audenar and G. Haesaert, Maize stover in relation to *Fusarium inoculum* and mycotoxins in maize fields of two agro-ecosystem zones in Tanzania.

08H50 – 09H10 L.K. Nyanga, T. C. Murashiki, M. P. Dembedza, B. Mvumi, M.A. Benhur and C. Chidewe, Postharvest technologies for reducing aflatoxins in maize grain and human exposure, Zimbabwe.

09H10 – 09H30 D. Haileselassie, P. Mosigisi and P. Villers, Storage – The Neglected Issue for Aflatoxin Control in Africa.

09h30 – 09h50 M. Ndemera, M. De Boevre and S. De Saeger, Mycotoxin management in a developing country context: a critical review of strategies aimed at decreasing dietary exposure to mycotoxins in Zimbabwe.

09H50 – 10H00 B. Janse van Rensburg, World Mycotoxin Journal – Mycotoxins: African Special Edition.

10H00 – 10H30 COFFEE/TEA AND POSTER VIEWING

10H30 – 10H50 G.J. van Coller, S.C. Lamprecht, I. Beukes and A. Viljoen, Resistance in South African wheat cultivars and test lines to *Fusarium* head blight caused by *Fusarium graminearum* s.s. and *F. pseudograminearum*.

10H50 – 11H10 J.F. Alberts, G. Schatzmayr, D-W. Moll, I. Davids, J.P. Rheeder and W.C.A. Gelderblom, A novel enzymatic maize kernel wash method for reduction of the fumonisin mycotoxins in rural home-grown maize.

11H10 – 11H30 G.A. Owino, F. Mutua, I.N. Kagera, D.Grace and J.F. Lindahl, Effect of NovaSil mycotoxin binder on Aflatoxin M₁ levels in milk in Kisumu County.

11H30 – 11H50 A. Mauro, R. Bandyopadhyay and G. Mahuku, Tanzanian-specific Aflasafe products for managing aflatoxins along the groundnut and maize value chains.

11H50 – 12H10 P.M. Dikhoba, N.I. Mongalo, E.E Elgorashi and T.J. Makhafola, Efficacy of selected South African plants species as potential postharvest bio-fungicides.

12H10 – 12H30 A. Cassiem, A. Viljoen and L.J. Rose, The effect of phenolic compounds on the growth and toxin production of *Fusarium* species associated with maize kernels.

12H30 – 12H50 G. Odongo, N. Schlotz, C. Herz , H. Waßmer , F. Hanschen, S. Baldermann, S. Neugart, C. Kühn, M. Schreiner, S. Rohn and E. Lamy, In vitro and ex vivo assessment of the chemopreventive potential of Ethiopian kale (*Brassica carinata*) against effects caused by the mycotoxin aflatoxin B₁.

12H50 – 13H00 General discussion/Summary by session chairperson

13H00 – 14H00 LUNCH

SESSION THEME: MONITORING AND EVALUATION OF TECHNOLOGY UPTAKE IN AFRICA

(CHAIRPERSON: ANTONIO MORETTI)

14H00 - 14H30 Keynote D. Ameyawds, Monitoring and Evaluation of Technology uptake in Africa.

14H30 – 14H50 A.O. Akande, A. Ortega-Beltran, K. Shenge, J. Atehnkeng, T. Falade, P.J. Cotty and R. Bandyopadhyay, From research to delivery: Experience of scaling-up aflatoxin control in Nigeria.

14H50 – 15H00 General discussion/Summary by session chairperson

SESSION THEME: OCCURRENCE AND IMPORTANCE OF MYCOTOXINS IN AFRICAN CROPS

(CHAIRPERSON: EZEKIEL CHIBUNDU)

15H00 – 15H30 Keynote A. Ayalew, The challenges of mycotoxin contamination in African crops: missing links to sustainably mitigate the challenges.

15H30 – 16H00 COFFEE/TEA AND POSTER VIEWING

16H00 – 16H20 R. Krska, H. Senyuva, J. Gilbert, H.J. van der Fels-Klerx and A. Fatjó Brugueras, Smart tools for farmers to provide advice to mitigate fungal infection and mycotoxins.

16H20 – 16H40 A. Vidal, S. Ouhibi, C. Meerpoel, C. Martins, S. De Saeger and M. De Boevre, Identification of biomarkers of exposure for patulin in humans.

16H40 - 17H00 A.L. Manizan, A. Carvajal-Campos, I. Piro-Metayer, D. Koffi Akaki, R. Koffi-Nevry, D. Montet, I.P. Oswald, S. Lorber, O. Puel and C. Brabet, Biodiversity of *Aspergillus* section *flavi* species isolated along the peanut paste production chain in Côte D'Ivoire.

17H00 – 18H00 Poster session and evaluation

19H00 – DINNER

WEDNESDAY 27 JUNE 2018

SESSION THEME: OCCURRENCE AND IMPORTANCE OF MYCOTOXINS IN AFRICAN CROPS (CHAIRPERSON: EZEKIEL CHIBUNDU)

08H00 – 08H20 E.W. Mwihi, J.L. Lyche, P.G. Muthia, J.K. Gathumbi, J. Maina, L. Ivanova, S. Uhlig, I.R. Mulei and G.S. Eriksen, Co-occurrence of multiple mycotoxins in fish feed in Kenya.

08H20 – 08H40 Y.Y. Gong, A meta-analysis and review of studies on aflatoxin exposure and child health in Africa.

08H40 – 09H00 C. Gruber-Dorninger, T. Jenkins and G. Schatzmayr, Multi-mycotoxin screening of feed and feed raw materials from Africa.

09H00 – 09H20 O. T. Ojuri, C. N. Ezekiel, M. Sulyok, O. T. Ezeokoli, O. Oyedele, K. I. Ayeni, B. Šarkanj, J. Hajšlová, R. A. Adeleke, C. C. Nwangburuka, C. T. Elliott and R. Krska, Mycological and mycotoxicological assessment of industrially- and household- processed complementary foods consumed by infants and young children in Nigeria.

09H20 – 09H40 C.A. Chilaka, M. De Boevre, O. Atanda and S. De Saeger, *Fusarium* mycotoxins in Nigerian traditional spices: natural occurrence and influence of traditional processing methods.

09H40 – 10H00 G. Antonissen, M. Devreese, A. Catteuw, M. Lauwers, S. Fraeyman, S. Debevere, W. Schelstraete, C. Meerpoel, S. De Baere and S. Croubels, In vivo toxicokinetic and infection models to study the effect of mycotoxin mitigation strategies on human and animal health.

10H00 – 10H30 COFFEE/TEA AND POSTER VIEWING

10H30 – 10H50 I.N. Kagera, F. Mutua, G. Delia and J.F. Lindahl, Status of aflatoxin contamination in marketed and farm gate milk in Nairobi County of Kenya.

10H50 – 11H10 J. Akello, J. Atehenkeng, G. Chikwenehere, C. Mguni, D. Takawira, J. Augusto, A. Ortega-Beltran and R. Bandyopadhyay, Mycotoxin prevalence in Zimbabwean maize and small grains: a case of contrasting facts.

11H10 – 11H30 P. W. Kachapulula, J. Akello, R. Bandyopadhyay and P. J. Cotty, Aflatoxin contamination of maize, groundnuts and fruits in Zambia.

11H30 – 11H50 I.E. Udom, E.T. Obishakin, Z.S.C.Okoye, C. A. Chilaka, M. De Boevre and S. De Saeger, Chemotaxonomy of *Fusarium verticillioides* and *Fusarium oxysporum* on Nigerian cereals.

11H50 – 12H10 A. Mitema, S. Okoth and M.S. Rafudeen, Molecular bio-markers and phenotypic characterization as a means of determining genetic diversity within *Aspergillus flavus* isolates.

12H10 – 12H30 Y.D. Oluwafemi, Y.A. Jeff-Agboola and E.O. Jeff-Agboola, Mould and Aflatoxin Contamination of yam flour in Akure Metropolis, Nigeria.

12H30 – 12H50 General discussion/Summary by session chairperson

12H50 – 13H00 A. Gallas – Charm Sciences.

13H00 – 14H00 LUNCH

SESSION THEME: PRE-HARVEST MANAGEMENT

(CHAIRPERSON: STEVE MUCHIRI)

14H00 – 14H30 Keynote: L. A. Senghor, A. Ortega-Beltran, M. Konlambigue, J. Atehnkeng, P.J. Cotty and R. Bandyopadhyay, The biocontrol product Aflasafe SN01: a registered tool for aflatoxin mitigation in maize and groundnut in Senegal and Gambia.

14H30 – 14H50 K. van Zyl, L.J. Rose and A. Viljoen, Defence-related genes in maize inbred lines tolerant and susceptible to *Fusarium* ear rot.

14H50 – 15H10 S. Okoth, L. R. Rose, A. Ouko, I. Beukes, H. Sila, M. Mouton, B. C. Flett, D. Makumbi and A. Viljoen, Tolerance to aflatoxin accumulation in maize inbred lines evaluated in Kenya and South Africa.

15H10 – 15H30 B. Janse van Rensburg, The relationship between available maize leaf nutrients, pathogenesis related proteins and *Fusarium verticillioides* infection and fumonisin contamination of maize grain under natural field conditions.

15H30 – 16H00 COFFEE/TEA AND POSTER VIEWING

16H00 – 16H20 N. Moola, K. Audenaert, M. Ameye, A. Jardine, S. Sayed, S. Murray and M.S. Rafudeen, An investigation on *Fusarium verticillioides* infection in maize: plant defence and 6-deoxy-6-amino chitosan as control agents.

16H20 – 16H40 General discussion/Summary by session chairperson

16H40 – 18H00 General panel discussion session and summary statement

19H00 – Conference gala dinner (Sponsored by MICROSEP)

POSTERS

SESSION THEME: MYCOTOXIN MANAGEMENT IN AN AFRICAN CONTEXT

Poster 1: E. Ayo, A. Matemu, H. Laswai and M. E. Kimanya, An in-vitro evaluation of the capacity of different materials in binding aflatoxins in solution.

Poster 2: E. Ayo, M. Matemu, G. H. Laswai and M. E. Kimanya, Socio-economic characteristics influencing level of awareness of aflatoxin contamination of feeds among livestock farmers in Meru District of Tanzania.

Poster 3: T. Abdoulaye, J. R. Fulton, A. M. Johnson, B. Ayedun, N. J.O. Widmar, A. Akande, R. Bandyopadhyay and V. Manyong, Managing aflatoxin along the value chain: the case of Aflasafe.

Poster 4: M.G. Amare, K. Affeldt and N.P. Keller, G protein-coupled receptors and their ubiquitous role in *Aspergillus flavus* growth and development, aflatoxin synthesis, stress response and nutrient and ligand sensing.

Poster 5: J. Atehnkeng, J. Augusto, P.S. Ojiambo, P. Cotty and R. Bandyopadhyay, Long-term efficacy of Aflasafe: a biocontrol product for aflatoxin mitigation, in farmers' fields in Nigeria.

SESSION THEME: OCCURRENCE AND IMPORTANCE OF MYCOTOXINS IN AFRICAN CROPS

Poster 6: S. Links, A. Viljoen and L.J. Rose, Phenotypic and physio-chemical properties associated with resistance in maize to *Fusarium* ear rot and fumonisin contamination.

Poster 7: P. Mngqawa, G.S. Shephard, I.R. Green, T.C. de Rijk and D.R. Katerere, Multiple mycotoxin contamination of rural home-grown maize in Northern South Africa.

Poster 8: M. Motlanthe Z. Skhosana and H. Meyer, Occurrence of mycotoxins in South African maize and wheat crops.

Poster 9: I. Adekoya, P. Njobeh, A. Obadina, S. Landschoot, S. Okoth, M. De Boevre, S. De Saeger, Toxicogenic variability of fungal species occurring in fermented foods from Nigeria and South Africa.

Poster 10: P.K. Karoki, W.M. Njue, S.M. Swaleh, E.K. Njoroge and C.W. Kathurima, Assessment of Ochratoxin A in wheat, finger millet and sorghum cereal grains retailed in Nairobi County, Kenya.

Poster 11: E. Marijani, M. De Bouvre, S. De Saeger, E. Kigadye, G.J.B. Gnonlonfin and S. Okoth, Occurrence of mycotoxins residues in fish muscles with special regard to aflatoxin effect on eggs and milt quality of *Oreochromis niloticus*.

Poster 12: M. Hove, P.Mngqawa, S.H.Ngobeni, D.R Katerere and T.C de Rijk, Multi-mycotoxin analysis of food crop samples from Limpopo and Mpumalanga provinces, South Africa.

Poster 13: M. F. Abdallah, L. Lust, G. Haesaesert, K. Audenaert, S. De Saeger and M. De Boevre, Dietary exposure to mycotoxins through the consumption of sugar cane juice in Egypt: the forgotten beverage.

Poster 14: M.C. Adetunji, L. Ngoma and M. Mwanza, Aflatoxin contamination and molecular characterisation of aflatoxigenic fungi from roasted cashew nut.

SESSION THEME: PRE-HARVEST MANAGEMENT

Poster 15: S. Kinyungu and C. Woloshuk, Efficacy of pre-harvest *Aspergillus flavus* biocontrol treatment on reducing aflatoxin accumulation during drying.

Poster 16: E. Ncube, B.C. Flett, J. van den Berg, A. Erasmus and A. Viljoen, Maize ear damage and its association with Fusarium ear rot and fumonisins.

Poster 17: K. Tadesse, A. Ayalew and D. Assefa, Management of aflatoxin producing fungi in groundnut (*Arachis hypogaea* L.) varieties in Mereb-Leke through soil solarization and planting time.

Poster 18: Y. Bless, L.J. Rose, A. Viljoen, Quantitative analysis of phenolic compounds in maize inbred lines following infection with *Fusarium verticillioides*.