IMC 11 2018

INTERNATIONAL MYCOLOGICAL CONGRESS

July 16-21, 2018 | San Juan, PR

"Mycological Discoveries for a Better World"

San Felipe del Morro Castle, Old San Juan, Puerto Rico

Abstract Book





INTERNATIONAL MYCOLOGICAL ASSOCIATION IMA

MSA

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11th International Mycological Congress

Mycological Discoveries for a Better World

July 15-21, 2018

Puerto Rico Convention Center
San Juan, Puerto Rico

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Dear Delegates of IMC11,

On behalf of the International Mycological Association (IMA) and the host organization the Mycological Society of America (MSA), we welcome you to the 11th International Mycological Congress (IMC11). Every four years, the mycologists of the world gather to share the latest, cutting-edge research on all aspects of fungal biology. We are excited for this opportunity to meet in San Juan in the spectacular Puerto Rico Convention Center for what we know will be a fantastic meeting filled with informative keynote addresses, in-depth symposia, intriguing poster presentations, interesting field trips, and inspiring social events.

The Local Organizing Committee, led by chair Sharon Cantrell and co-chair Jean Lodge, overcame enormous logistical obstacles following Hurricane María in 2017, and we owe them tremendous thanks for their efforts for this congress. The Scientific Programme Committee led by chair Chris Schardl and co-chair Don Pfister, have toiled for the past two years assembling the diverse scientific program of the meeting. The IMA and MSA are extremely grateful to these committees and all who dedicated their time and energy to the organization of this meeting, the University del Turabo for their support of the local organizing committee, and to all the sponsors and exhibitors for their contributions to the success of the meeting.

We expect IMC11 to follow in the footsteps of previous congresses as a life-changing, mycology-affirming experience for all delegates. With its common roots in field biology and laboratory science, mycology provides a unique opportunity for interaction and exchange between scientists with diverse technical backgrounds and from different cultures. We are particularly happy to welcome students to the meeting. Please take the opportunity to interact with as many of your colleagues as you can, whether you are a student, a professor or an emeritus. The world of mycology is here. Embrace it.

Sincerely,

Keith A. Seifert, PhD
President, International Mycological Association
ima-mycology.org || @IMA_Mycology

Thomas J. Volk, PhD
President, Mycological Society of America
www.msafungi.org || @msafungi

insect hosts were classified to Coleoptera (75.3%), Hemiptera (6.9%), Hymenoptera (0.3%), Isoptera (8.7%), Orthoptera (0.5%), Lepidoptera (8.4%). *Shimizuomyces* sp. growing on fruit plants were also found in the ecosystem. Interestingly, the interactions between the hyperparasitic fungus *Polycephalomyces* and their diverse hosts has been observed in this ecosystem. The novel fungal pathogen *Polycephalomyces phaothaiensis* is a parasite of coleopteran larvae which occurs in rainy season. Meanwhile *P. phaothaiensis* also plays a role as hyperparasitic fungus which infects numerous fungal hosts such as *Ophiocordyceps* sp.1 and *Ophiocordyceps* cf. *brunneipunctata,* found predominantly during the rainy season. From our investigations, we found 21 species of entomopathogenic fungi and a first record of the genus *Shimizuomyces*. *Polycephalomyces phaothaiensis* has multiple hosts and little is known about its life cycle and ecology.

2.2-70 Decontamination of aflatoxin B1 and mycocinogenic activity evaluation by using yeasts belonging to the complex *Meyerozyma guilliermondii*

M. G. Etcheverry[1], A. Montemarani[2], S. N. Robledo[3], A. V. Nesci[1]
[1]Microbiologia e Inmunologia. CONICET, Universidad Nacional de Rio Cuarto, Rio Cuarto, Córdoba, ARGENTINA, [2]Departamneto de Microbiología e Inmunologia, CONICET, Universidad Nacional de Rio Cuarto, Rio Cuarto, Córdoba, ARGENTINA, [3]Tecnologia Química, Universidad Nacional de Rio Cuarto, Río Cuarto Córdoba, ARGENTINA

Abstract: This study pursued understanding the modes of action by which yeast isolates belonging to the complex *Meyerozyma guilliermondii* affect AFB_1 production by *Aspergillus flavus*. Isolates Y16 and Y25 were not able to produce *killer* toxins. However, whole cells and some cellular constituents were able to reduce AFB_1 concentrations in different evaluated conditions. Cell-free supernatant of isolates decreased AFB_1 levels in liquid medium. For this reason, the effect on ground maize grains was studied. The characterization of the cell-free supernatants and the optimization of the biological decontamination activity of the toxin were tested. The experimental design showed that the best conditions for the cell-free supernatant of yeast Y16 to produce a significant reduction of AFB_1 were 39° C, pH 8 and the presence of Mg^+. The cell-free supernatant of yeast Y25 was effective at 28° C, pH 5 and presence of Mg^+. These results made us suppose a possible enzymatic effect in the reduction of AFB_1. To determine whether the effect of the cell-free supernatant of the yeasts on the accumulation of AFB_1 was attributable to a protein activity, they were subjected to heat inactivation and proteinase k treatment. No changes on the reduction of the toxin levels were detected. The toxin reduction doesn't correspond to an enzymatic effect. The cell-free supernatant from the two yeast isolates added to ground maize grains were able to reduce the levels of AFB_1 when the toxin was already present in the substrate. Characterization of cell-free supernatants and optimization of the biological decontamination activity of the toxin are necessary steps in the process of selecting a treatment applicable to stored maize.

2.2-71 Phenotypic and phylogenetic studies of selected Philippine invertebrate pathogenic fungi

L. M. Maghari-Capio and E. Tadiosa[2]
[1]College and Humanities and Sciences, De La Salle Health Sciences Institute, Dasmarinas City, Cavite, PHILIPPINES, [2]Botany Division, National Museum of the Philippines, Ermita, Manila, PHILIPPINES

Abstract: Invertebrate pathogenic fungi (IPF), are fungi that grow superficially on invertebrate exoskeleton and progress all throughout the body. They encompass an extensive set of phenotypically, phylogenetically, and ecologically distinct fungal species on invertebrates. The present study involves host specificity, phenotypic and phylogenetic studies of IPF. Isolation was done using Potato Dextrose Agar (PDA) and using Lactophenol Cotton Blue to stain the structures for phenotypic analyses.