ISHAM Working Group Annual Report 2019

1. Title of Working Group

Onygenales

2. Name(s) of Coordinator(s) with email addresses

Vit Hubka: vit.hubka@seznam.cz

Hazal Kandemir: hazalkandemr@gmail.com

Ann Packeu: Ann.Packeu@sciensano.be

Dusan Bozic: updbozic@gmail.com

3. Website URL for external website (if relevant)

None.

4. Objectives and expected outcomes for the forthcoming year

1) Workshop of Onygenales WG will be held in Prague on 10-11 September 2020.

2) A thematic issue of the journal Mycopathologia on dermatophytes and other onygenalean fungi will be published at the beginning of 2020. This issue will be distributed to Onygenales Working Group members free of charge.

3) The web site of the group was renovated during 2019 and will be accessible during 2020.

4) The Onygenales WG encouraged a number of studies on phylogenomics, virulence, diagnostics, antifungal resistance, epidemiology and taxonomy of onygenalean fungi. The progress of these studies will be discussed during the workshop.

5) Special emphasis will be placed on the monitoring and spread prevention of the emerging resistance in dermatophytes, and also the resolution of species boundaries and population genetic studies in the species complexes of critically important pathogenic dermatophytes, e.g., *Trichophyton mentagrophytes*/*T. interdigitale* complex and *T. benhamiae* complex.

6) To reduce the difficulties in identification of Onygenales members, current taxonomy will be revised based on the phylogeny and new nomenclature rules.

5. Achievements of the Working Group in 2019 (250 words) [1-3]

1) A significant progress has been achieved in the delimitation of species boundaries and population genetics of some important species complexes, namely, *Trichophyton rubrum* complex and *Trichophyton tonsurans*/*T. equinum*.

2) The genus *Nannizzia* was monographed and several novel species and genera (*Currahmyces*, *Canomyces*) were proposed in the order Onygenales. A novel

phylogenetic marker PRP8 Intein was introduced.

3) Several studies brought new insight into the biology, epidemiology and diagnostics of dimorphic fungi in their endemic areas (*Histoplasma*, *Coccidioides*, *Emmonsia*-like fungi).

4) Other studies were devoted to virulence factors, mating-type genes, epidemiology and clarification of the definition of some clinical entities (Majocchi's Granuloma).

6. Publications arising from the Working Group (provide the link if appropriate)

A total of 16 publications (currently early online) will be included in the special issue of the Mycopathologia journal. These studies will be published under the umbrella of Onygenales Working Group (preliminary data for the majority of these studies were previously presented during WG workshop in Amsterdam). A complete issue will be available on the following link: https://link.springer.com/journal/volumesAndIssues/11046

7. Funding provided by ISHAM in the past 3 years (Budget and year)

2017: None

2018: 5000 CHF (workshop "Onygenales: Dermatophytes and Systemic Fungi" organized in Amsterdam, The Netherlands)

2019: None