



Diversity and Barcoding of Medical Fungi: Novel Achievements and Masterclass

A meeting of the ISHAM Working Groups on Barcoding and Scedosporium

22-23 April 2014

Introduction

Welcome to the ISHAM Workshop on Barcoding of Medical Fungi. We are happy to announce that we have a fantastic panel of speakers. If you have any questions, please contact Sybren de Hoog (de.hoog@cbs.knaw.nl) or to Wieland Meyer (w.meyer@usyd.edu.au).

Venue

CBS-KNAW Fungal Biodiversity Centre, Utrecht, Uppsalalaan 8, The Netherlands. The institute is easily reached from Amsterdam Schiphol Airport within one hour by public transportation, please check www.cbs.knaw.nl. The weather in The Netherlands early April is still fresh, mostly around 10 – 15 °C, and rain may be expected.

Registration

Registration before 15 April is compulsory; for on-site registration and no-show €100,- will be charged. Abstract submission deadline is 1 April 2014. The workshop including lunches and dinners is provided at no cost.

Sponsors

We are grateful to our sponsors ThermoFisher Inc., Astellas, Elsevier Publishing Co. and the International Society for Human and Animal Mycology (ISHAM) for generous support of this meeting. Do become a member of ISHAM at www.ISHAM.org! For free membership of the ISHAM Working group on Barcoding, contact Wieland Meyer w.meyer@usyd.edu.au.



Welcome to Utrecht!

The organisers: Sybren de Hoog, Wieland Meyer, Michaela Lackner, Kathrin Tintelnot

Programme

22 April 2014

- 08.00- 08.45 Registration, room open with coffee
- 08.45-09.00 Opening

Session 1 Chairs: Sharon Chen, Jens Frisvad

■ 09.00-09.20

Dirk Stubbe, Marijke Hendrickx, Sam Roesems (BCCM/IHEM Culture Collection of Biomedical Fungi and Yeasts, Service of Mycology and Aerobiology, Scientific Institute of Public Health, Brussels, Belgium): ***Maldi-tof as an additional tool for strain characterisation in the BCCM/IHEM culture collection.***

■ 09.20-.9.40

Valérie Monnin, David Pincus (bioMérieux R & D Microbiology Department, France): ***Pseudallescheria and Scedosporium species differentiation from agar cultures by MALDI-TOF Mass Spectrometry.***

■ 09.40-10.00

Andreas Zautner, Claudia Folba, Mareike Bernhard, Michael Weig, Uwe Groß and Oliver Bader (Institute for Medical Microbiology, University Medical Center Göttingen, Kreuzberggring 57, D-37075 Göttingen) ***Approaches to intra-species typing using MALDI-TOF MS***

■ 10.00-10.20

P.-M. Rath, J. Steinmann (Institute of Medical Microbiology, University Hospital, Essen, Germany): ***Genotyping and susceptibility testing with inhalative agents.***

■ 10.20-10.50 Coffee break

Session 2 Chairs: Elena Piecková, Kathrin Tintelnot

■ 10.50-11.10

Anne-Cécile Normand, Magali Gautier, Carole Cassagne, Coralie L'Ollivier, Stephane Ranque, Renaud Piarroux (Parasitology & Mycology, Assistance Publique-Hôpitaux de Marseille, CHU Timone-Adultes, Marseille, France): ***Routine identification of mold using MALDI TOF MS.***

■ 11.10-11.30

Sharon Chen (Centre for Infectious Diseases and Microbiology Laboratory Services, Westmead Hospital, ICPMR, Sydney, Australia): ***Antifungal Drugs: new approaches***

■ 11.30-11.50

Monica Ganan, Morten Sørli (Department of Microbiology, Rikshospitalet, Oslo University Hospital, Oslo, Norway): ***New and alternative antifungals.***

Programme

■ 11.50-12.10

Heinrich Anne¹, Rehorska René², Pfeifhofer Hartwig Wilfried², Jamnig Julia², Mueller Maria², Buzina Walter¹ (¹Institute Of Hygiene, Microbiology And Environmental Medicine, Medical University Of Graz, ²Institute Of Plant Sciences, University Of Graz, Austria) **Susceptibility of Scedosporium species against plant extracts from neophytes**

■ 12.10-12.30

Fabiola Fernández¹, Josep Guarro², Cornelia Lass-Flörl³, Michaela Lackner³ (¹Unitat d'Anatomia Patològica, Facultat de Medicina i Ciències de la Salut, IISPV, Universitat Rovira i Virgili, Reus ²Unitat d' Microbiologia, Facultat de Medicina i Ciències de la Salut, IISPV, Universitat Rovira i Virgili, Reus ³Division of Hygiene and Medical Microbiology, Innsbruck Medical University, Innsbruck, Austria.) **Azole-echinocandin combination a potential therapeutic option against scedosporiosis - new in vitro and vivo study insights and experiences from case studies**

■ 12.30-13.30 Lunch

Session 3 Chairs: Michaela Lackner, Dea Garcia-Hermoso

■ 13.30-13.50

Laszlo Galgoczy, Monika Homa, Csaba Vagvolgyi, Tamas Papp (University of Szeged, Faculty of Science and Informatics, Department of Microbiology, Hungary): **Beyond the conventional antifungal agents: Antifungal activity of non-antifungal drugs against Scedosporium and Pseudallescheria isolates.**

■ 13.50-14.10

Jens C. Frisvad & K.F. Nielsen (Department of Systems Biology DTU, Lyngby, Denmark): **Can secondary metabolites add significant taxonomic data in Scedosporium?**

■ 14.10-14.30

Dea Garcia-Hermoso^{1,2}, Aude Sturny-Leclere^{1,2}, Damien Hoinard^{1,2}, Alexandre Alanio^{1,2} & Françoise Dromer^{1,2} (¹Institut Pasteur, Unité de Mycologie Moléculaire, Centre National de Référence Mycoses Invasives et Antifongiques, Paris, France ² CNRS URA3012, Paris, France): **Evaluation of physiological parameters of Scedosporium and Pseudallescheria species.**

■ 14.30-14.50

Ulrike Binder, Cornelia Lass-Flörl, Michaela Lackner (Medical University Innsbruck, Division of Hygiene and Medical Microbiology): **Galleria mellonella as an alternative model to study Scedosporium-infections.**

■ 14.50-15.20 Tea break

Programme

Session 4 Chairs: Walter Buzina, Josep Cano

■ **15.20-15.40**

Ayse Kalkanci, Ali Adil Fouad, Merve Erdogan, Nevin Keskin (Gazi University School of Medicine Department of Medical Microbiology, Ankara, Turkey): **Mini model of Scedosporium infection.**

■ **15.40-16.00**

Kjetil F. Christensen, Jørgen Bjørnholt, Reza Assalkhou (Department of Microbiology, Rikshospitalet, Oslo University Hospital, Oslo, Norway): **Animal models.**

■ **16.00-16.20**

Stepanova A.A., Vasilyeva N.V. (I.I. Mechnikov North-Western State Medical University: Kashkin Research Institute of Medical Mycology, Santiago-de-Cuba 1/28, 194291, Saint Petersburg, Russia): **Ultrastructure of lateral cell walls, septa and septal pore apparatus in the cells of vegetative mycelium of Pseudallescheria species**

■ **16.20-16.40**

Kathrin Tintelnot, Anne Bernhardt (Robert Koch Institut, Berlin, Germany): **Identification of scedosporiosis from FFPE tissue.**

■ **16.40-17.00**

R.O.R. Calixto, J.M. Vieira, R. Rollin-Pinheiro, L.C.L. Lopes, G.L. Sasaki, L.M. de Souza, E. Barreto-Bergter (Departamento de Microbiologia Geral, Instituto de Microbiologia, UFRJ, Rio de Janeiro, Brasil; Departamento de Análises Clínicas e Toxicológicas, Faculdade de Farmacia, UFRJ, Rio de Janeiro, Brasil; Departamento de Bioquímica e Biologia Celular, UFPR, Paraná, Brasil): **Structural analysis of glucosylceramides (CMHs) from species of the Pseudallescheria / Scedosporium complex.**

■ **17.00-17.20**

Ferry Hagen, Teun Boekhout (CBS-KNAW Fungal Biodiversity Centre, Yeast Research, Utrecht, The Netherlands; Department of Medical Microbiology and Infectious Diseases, Canisius-Wilhelmina Hospital, Nijmegen, The Netherlands) **Towards a new taxonomy for the basidiomycetous yeasts and the Cryptococcus neoformans and Cryptococcus gattii species complex in particular.**

■ **18.00 Departure Bus to Utrecht city centre**

■ **18.30 Dinner at Live Utrecht**

Programme

23 April 2014

- 08.30- 09.00 Room open with coffee

Session 5 Chairs: Johannes Rainer, Dirk Stubbe

- 09.00-09.20

Ilka McCormick Smith¹, Ludwig Sedlacek², Danny Jonigk³, Volker Rickerts¹ (¹Robert Koch-Institut, Berlin, Germany ² Medizinische Hochschule Hannover, Hannover, Germany ³Medizinische Hochschule Hannover, Hannover, Germany) **Identification of Scedosporium and other fungi in formalin fixed, paraffin embedded tissue from patients with cystic fibrosis by broadrange PCR and Fluorescence in situ hybridisation (FISH)**

- 09.20-09.40

A. Bernhardt¹, L. Sedlacek², C. Schwarz³, K. Tintelnot¹ (¹ Mycotic and Parasitic Agents and Mycobacteria, Robert Koch-Institut, Berlin, Germany, ² Institut für Med. Mikrobiologie und Hygiene, Medizinische Hochschule Hannover, Hannover, Germany, ³ Christiane Herzog-Zentrum/Mukoviszidose, Charité – Universitätsmedizin, Berlin, Germany) **Multilocus sequence typing of follow up Scedosporium isolates from cystic fibrosis patients**

- 09.40-10.00

Wieland Meyer (Molecular Mycology Research Laboratory, Sydney Medical School, Westmead Hospital, Sydney, Australia): **An update on the Scedosporium aurantiacum MLST analysis.**

- 10.00-10.20

Lucia Kraková, Domenico Pangallo, Mária Majorošová, Elena Piecková (Institute of Molecular Biology, Slovak Academy of Sciences, Bratislava, Medical Faculty, Slovak Medical University, Bratislava, Slovakia): **Discriminative potential of different PCR-based methods at Scedosporium strains**

- 10.20-11.10 Coffee break

Session 6 Chairs: Ayse Kalkanci, Wieland Meyer

- 11.10-11.30

Min Chen, Shuwen Deng, Sybren de Hoog (CBS-KNAW Fungal Biodiversity Centre, Utrecht, The Netherlands; Shanghai Key Laboratory of Molecular Medical Mycology, Department of Dermatology, Shanghai Changzheng Hospital, Second Military Medical University, Shanghai, China): **Loop-mediated isothermal amplification as a diagnostic technique.**

Programme

■ **11.30-11.50**

Benjamin Stielow, Dea Garcia-Hermoso (CBS-KNAW Fungal Biodiversity Centre, Utrecht, The Netherlands and National Reference Center of Invasive Mycosis and Antifungals, Institute Pasteur, Paris): ***DNA barcoding to resolve Scedosporium apiospermum.***

■ **11.50-12.10**

J. Rainer¹ & J. Kaltseis² (¹Institute of Microbiology, Leopold-Franzens-University Innsbruck, Austria; ²Division of Hygiene and Medical Microbiology, Innsbruck Medical University, Austria): ***Can diesel fuel tolerance and utilization by Scedosporium species be used as barcoding tool?***

■ **12.10-12.30**

Walter Buzina, Anne Heinrich, Erich Leitner (Laboratory for Medical Mycology, Institute of Hygiene, Medical University Graz, Austria): ***VOC spectrum of Scedosporium species.***

■ **12.30-13.30 Lunch**

Session 7 Chairs: Cornelia Lass-Flörl, Ferry Hagen

■ **13.30-13.50**

Tamas Papp, Gabor Nagy, Anita Farkas, Arpad Csernetics, Csaba Vagvolgyi (University of Szeged, Faculty of Science and Informatics, Department of Microbiology, Szeged, Hungary): ***Transcription analysis of certain genes of Scedosporium (Pseudallescheria) isolates.***

■ **13.50-14.10**

Karolina Dukik, Benjamin Stielow, Sybren de Hoog, Mariceli Araujo, Yvonne Graeser (CBS-KNAW Fungal Biodiversity Centre, Utrecht, The Netherlands, and Institute for Microbiology Charite, Humboldt University, Berlin, Germany): ***Towards a multilocus phylogeny of dermatophytes.***

■ **14.10-14.30**

José F. Cano-Lira, Alberto M. Stchigel, Dania García and Josep Guarro (Mycology Unit, University Rovira i Virgili and IISPV, C/ Sant Llorenç 21, 43201 Reus, Spain): ***Resolving the phylogeny of chrysosporia***

■ **14.30-14.50**

Yu Zhang, Ferry Hagen, Benjamin Stielow, Sybren de Hoog (Tianjin Academy of Traditional Chinese Medicine Affiliated Hospital, Tianjin, China; CBS-KNAW Fungal Biodiversity Centre, Utrecht, The Netherlands; Department of Medical Microbiology and Infectious Diseases, Canisius Wilhelmina Hospital, Nijmegen, The Netherlands): ***Historical biogeography and evolutionary patterns in human- and animal-pathogenic Sporothrix species***

■ **14.50-15.20 Tea break**

Programme

Session 8 Chairs: Tamas Papp, Ana Alastruey Izquierdo

■ **15.20-15.40**

László Kredics, András Szekeres, Lóránt Hatvani, László Manczinger, Csaba Vágvölgyi (Department of Microbiology, Faculty of Science and Informatics, University of Szeged, Szeged, Hungary): **Orphan fungal infections caused by members of the genus *Trichoderma*.**

■ **15.40-16.00**

Ana Alastruey Izquierdo (National Centre for Microbiology, ISCIII, Madrid, Spain): **Antifungal susceptibility profile of *Scedosporium* spp.**

■ **16.00-16.20**

Wieland Meyer (Molecular Mycology Research Laboratory, Sydney Medical School, Westmead Hospital, Sydney, Australia): **Genome analysis of *Scedosporium aurantiacum*.**

■ **16.20-16.40**

Anne D. van Diepeningen (CBS-KNAW Fungal Biodiversity centre, Utrecht, The Netherlands): **DNA and Protein based diagnostics of the *Fusarium fujikuroi* species complex.**

■ **17.30 Dinner at CBS**

Accreditation

An application has been made to the EACCME for CME accreditation of this event.

