

First European Workshop

**"Modern Taxonomic Tools and Molecular Mycology in  
Diagnosis, Treatment, Epidemiology and  
Prevention of Fungal Diseases"**

15 - 18 April 2003, Athens

Mycology Laboratory, Department of Microbiology, Medical School,  
University of Athens

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**WORKSHOP FACULTY**

**W. Meyer (Sydney, Australia)**

**V. Robert (Utrecht, Netherlands)**

**A. Velegraki (Athens, Greece)**

**Tuesday 15.4.2003**

9.00 **Opening of the Workshop:** Professor of Microbiology N. J. Legakis

9.15 **Self-introduction of all participants**

9.30 **Lecture:** A. Velegraki/M. Arabatzis "Dermatophytes Clinical and Laboratory aspects"

10.30 Coffee Break

11.00 **Lecture:** A. Velegraki "Antifungal Susceptibility Testing I" (NCCLS microdilution method and Etest)

12.00 Lunch

13.00 **Lecture:** G. Gaitanis/A. Velegraki. The *Malassezia* challenge "Antifungal Susceptibility Testing II"

14.00 **Practical:** M. Logotheti, S. Kritikou, G. Gaitanis / A. Velegraki "Antifungal Susceptibility Testing"

16.45 Coffee Break

17.00 **Lecture:** W. Meyer "Molecular Biology as the Basis for Molecular Fungal ID"

20.00 Welcome Reception

**Wednesday 16.4.2003**

9.00 **Lecture:** W. Meyer "Molecular ID I - Specimen Collection, DNA Extraction, Gene Amplification, Commercial DNA based Fungal ID Systems"

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10.00 **Practical:** W. Meyer/A. Velegraki/G. Gaitanis/M. Arabatzis "Molecular Practical I: ITS amplification PCR and gel set up"

11.30 Coffee Break

12.00 **Lecture:** V. Robert "Fungal storage"

12.30 **Lecture:** W. Meyer "Molecular ID II - RFLP analysis as tool for species ID"

13.00 Lunch

14.00 **Practical:** W. Meyer/A. Velegraki "Molecular Practical II: Gel loading"

15.00 **Lecture:** W. Meyer "Molecular ID III - Multilocus approaches (RAPD, AFLP, PCR-fingerprinting as tools for species and strain ID and PCR-fingerprinting Database"

16.00 Coffee Break

17.00 **Practical:** W. Meyer/A. Velegraki, M. Arabatzis, G. Gaitanis "Molecular Practical III: Gel analysis, taking a photo of the ITS gel, discussion of the ITS amplification results, RFLP set up"

19.00 Evening Free

**Thursday 17.4.2003**

9.00 **Practical:** W. Meyer/A. Velegraki "Molecular Practical IV: RFLP Gel set up"

10.00 **Lecture:** W. Meyer "Molecular ID IV - Phylogeny as basis for a taxonomy based on natural relationships and subsequent molecular ID, amplification of specific genes and sequencing for species ID, evaluation of ribosomal DNA and actin gene sequences"

10.45 Coffee Break

11.00 **Lecture:** G. Gaitanis/A. Velegraki "Molecular ID and Typing of *Malassezia*"

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- 11.30 **Practical:** W. Meyer/A. Velegraki "Molecular Practical V: Loading the RFLP gel"
- 12.00 **Lecture:** Applied Biosystems "The Applied Biosystems sequence based fungal ID kit"
- 12.30 Lunch
- 13.15 **Lecture:** V. Robert "Issues with sequence data handling"
- 14.15 **Practical:** W. Meyer/A. Velegraki "Molecular Practical VI: Taking a photo of the RFLP gel, discussion of the RFLP results"
- 15.00 Coffee Break
- 15.15 **Practical:** V. Robert "Molecular Practical VII: How to do a sequence search?"
- 16.15 **Practical:** W. Meyer/A. Velegraki, G. Gaitanis, M. Arabatzis "Molecular Practical VIII: Setting up the PCR-fingerprint reaction"
- 17.00 **Lecture:** V. Robert "Algorithmic and organizational challenges related to the integration of large volume of heterogeneous data/BioMICS"

**Friday 18.4.2003**

- 9.00 **Practical:** W. Meyer/ A. Velegraki, M. Arabatzis, G. Gaitanis "Molecular Practical IX: PCR-fingerprinting Gel set up"
- 9.30 **Lecture:** Roche "Molecular ID Va - Real time PCR LightCycler application for fungal detection and quantitation"
- 10.00 **Lecture:** Applied Biosystems "Molecular ID Vb - Real time PCR TaqMan applications for fungal detection and quantitation"
- 10.30 **Lecture:** A. Velegraki "Real Time PCR for the detection of *Candida* species"
- 11.00 Coffee Break
- 11.15 **Practical:** W. Meyer/ A. Velegraki: Molecular Practical X: PCR-fingerprinting

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Gel loading

- 11.45 **Practical:** A. Velegraki/W. Meyer/Roche "Molecular Practical XI: Real Time PCR set up Roche Light Cycler"
- 13.00 Lunch
- 13.45 **Lecture:** W. Meyer "Molecular ID VI - Critical issues of molecular based fungal identification"
- 14.15 **Practical:** A. Velegraki/W. Meyer/Roche "Molecular Practical XII: Discussion of the Real Time PCR results"
- 14.45 **Lecture:** W. Meyer "Epidemiological applications of molecular laboratory tools"
- 15.15 **Practical:** V. Robert "How to use BioloMICS"
- 16.00 Coffee Break
- 16.15 **Lecture:** W. Meyer "Global molecular epidemiology of *Cryptococcus neoformans* reveals ongoing speciation within the cryptococcal species complex"
- 16.45 **Lecture:** W. Meyer "Molecular ID VII - Future directions of molecular fungal ID (Macro- Microarray technology)"
- 17.15 **Practical:** W. Meyer/A. Velegraki "Molecular Practical XIII: Taking a photo of the PCR-fingerprint gel and discussion of the PCR-fingerprint results"