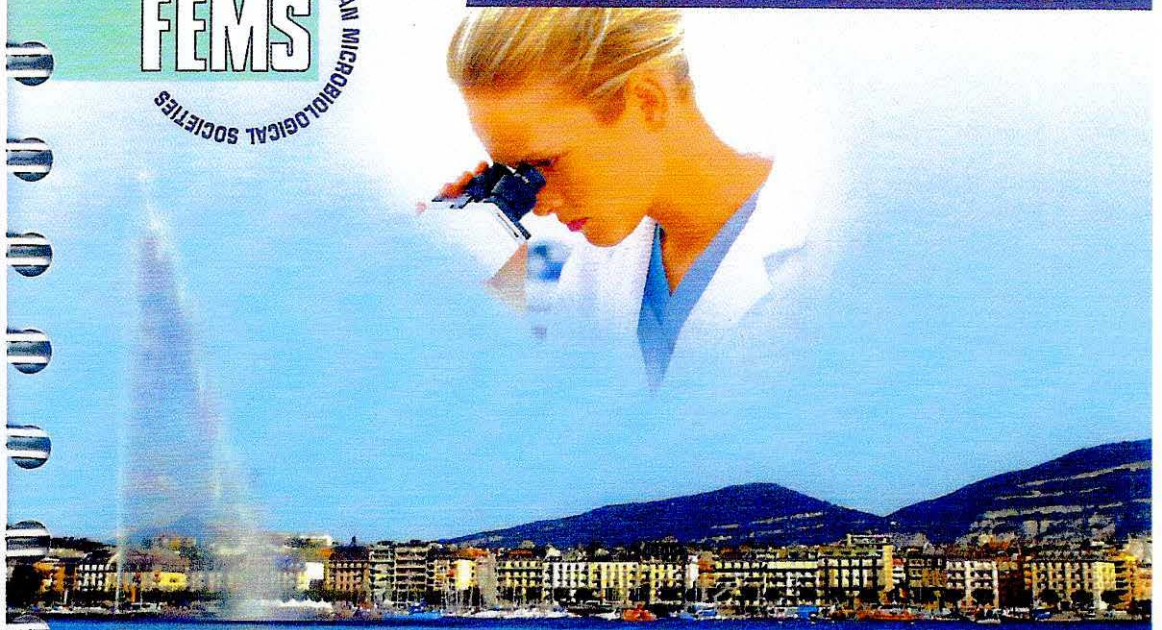


# PROGRAM BOOK

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## IS MALDI-TOF ICMS ABLE TO DISCRIMINATE DERMATOPHYTE CLONES?

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Dermatophytes are keratinolytic fungi that are responsible for the commonest onychomycosis. The affinity for keratinised tissues by dermatophytes implies in most of the cases, that the infection remains restricted to the nonliving cornified layers of the skin, nails, and hair. Among dermatophytes, the species *Trichophyton rubrum* is of particular clinical interest because it is the most common agent of human dermatophytoses. Matrix Assisted Laser Desorption Ionization Time of Flight Intact Cell Mass Spectrometry (MALDI-TOF ICMS) analysis has already been used as a rapid technique in the identification and classification of microorganisms. It has also been incorporated as an additional technique in the polyphasic approach to improve the accuracy of the microbial identification issue. In this study, twenty clinical isolates of *T. rubrum* from the human nails were analysed using a polyphasic approach that was based on macro- and micro- morphologies, biochemistry, molecular biology using Trubrum-for (5'TCTTTGAACGCACATTGCGCC3') and Trubrum-rev (5'CGGTCCTGAGGGC GCTGAA3') primers and MALDI-TOF ICMS analyses. All *T. rubrum* identifications were confirmed by these applied techniques. Additionally, nine isolates were grouped together as "clones" by MALDI-TOF ICMS. In order to clarify if spectral results have any correspondence to the molecular data, primer M13 (5'GAGGGTGGCGGTTCT3') was used to typing these isolates. Surprisingly, the molecular biology data corroborate to those found by MALDI-TOF ICMS concerning the occurrence of clones. This findings needs to be studied more in detail using other primers for expand the typing studies.