biological resources and their associate information including quality control are perused by these collections. The recent national projects, with reasonable budgets to support their activities, either on networking activities or requalification and management create a new breath and responsibilities to these collections. Taking advantage of good and well equipped premises of LIKA these collections are now open new avenues working in consortium to improve the quality control of their holdings using new tools from molecular biology and spectral analysis (MALDI-Tof) to achieve in the future a certified BRC for the UFPE microbial culture collections

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MALDI-TOF MS POTENTIALITIES AND LIMITS TO CHARACTERISE AFLATOXIGENIC SPECIES OF ASPERGILLUS SECTION FLAVI

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Aspergillus is a large genus, with a complex taxonomy. The genus is easily identified by its characteristic conidiophore, but species identification and differentiation is complex, mainly because it is traditionally based on a range of morphological features. Aspergillus subgenus Circumdati section Flavi, also refered to as the A. flavus group, has attracted worldwide attention for its industrial use and toxigenic potential. Section Flavi is divided in two groups of species. One includes the aflatoxigenic species A. flavus, A. parasiticus and A. nomius, which cause serious problems in agricultural commodities, and the other one includes the non-aflatoxigenic species A. oryzae, A. sojae and A. tamarii, traditionally used for production of fermented foods. Species from A. flavus group are morphologically and genetically very similar, and are therefore difficult to differentiate by both cultural and molecular methods. Matrix Assisted Laser Desorption Ionization Time-of-Flight (MALDI-TOF) Mass Sepectrometry has already shown high potentialities in discriminating very closely related taxa. This technique is a phenotype characterization taking advantage that whole mycelium and/or spores can be investigated and the mass range of surface proteins can be used as organism-specific signal patterns (fingerprints). This work intended using MALDI-TOF MS to discriminate 30 strains isolated from Portuguese grapes which were previously classified as A. flavus group by morphological methods. These results are compared with that previously obtained by conventional methods.

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HISTOPATHOLOGICAL EVALUATION OF ONYCHOMYCOSIS IN PORTUGUESE PODIATRIC PATIENTS

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Onychomycosis is a fungal infection which is a major cause of nail abnormalities in developed countries. In clinical suspected cases of onychomycosis potassium hydroxide preparation and fungal culture are the diagnostic methods typically used. Nevertheless cultures require a long incubation period of at least three weeks and rates of approximately 30% of false negative results have been reported. Therefore possible contamination can mask the existence of the actual infectious agent in the event of an overgrowth. Histological examination of periodic acid-Shiff (PAS)-stained nail clippings has been proposed as an alternative to the former diagnostic methods given that results are obtained after a short period of 24h-48h. Thus it is assumed that there exist only few interfering factors, such as artefacts from particles, serum and parakeratotic cells that might give rise to false results. The aim of this work was to perform a definitive diagnosis of nail mycotic infection by the examination of histological section samples PAS-stained from 55 patients (age ranging 3 to 86 years) clinically suspected of having onychomycosis. All patients were attending the Podology Service in the Centro Hospitalar do Alto Ave (Guimarães-Portugal) between October to December 2007. Fungal culture was also carried out in selective Sabouraud media with and without antibiotics and posterior fungi identification based on the macroscopic and microscopic features was performed. Every fungal growth was recorded as positive regardless of the questionable pathogenicity of the infectious agent. Among the different types of fungi identified culturally, 22.2% were identified as der-