

P-025: CALCINEURIN GENE ENCODING SECONDARY METABOLITES DIFFERENCES IN *ASPERGILLUS FUMIGATUS*

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A. fumigatus is a primary and opportunistic pathogen as well as a major allergen of great medical and ecological importance. Calcineurin is a serine/threonine-specific protein phosphatase heterodimer. It functions as a mediator for calcium signals in eukariotic cells which is important for several cellular processes, such as the activation of T cells. The deletion of the *calA* gene, which encodes the calcineurin A catalytic subunit, was previously found to have a pronounced phenotypic defect. In this work we have observed that the production of secondary metabolites by *A. fumigatus* is also influenced by the deletion of the *calA* gene. EtOAc extracts obtained from the culture broths from both the mutant $\Delta calA$ and the wild KU80 $\Delta pyrG$ strains were analyzed through HPLC-DAD and high resolution q-TOF ESI-MS scan. Different chemical profiles were obtained for both extracts. Comparative analysis of the high resolution ESI-MS data showed a compound (m/z 418.1733) only present in the wild type strain. This peak is in agreement with the accurate mass of [spirotryprostratin A + Na⁺]. The $\Delta calA$ mutant strain produced five compounds which were absent in the wild type. These results suggest that the calcineurin might also take part in the biosynthesis of secondary metabolites by *A. fumigatus*.

