

SUPPRESSION SUBTRACTIVE ANALYSES REVEALED GENES DOWN-REGULATED IN THE *palA1* MUTANTE STRAIN OF *Aspergillus nidulans* GROWN IN ACID pH

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The pH regulation in *A. nidulans* is mediated by at least seven genes: six members of the activating signaling cascade (*pal A, B, C, F, H* and *I*) and *pacC*, which codes for the transcription factor PacC. The proteolyzed form of PacC, which occurs by the action of the *pal* genes at alkaline pH, activates the transcription of alkaline-expressed genes and represses the transcription of acid-expressed genes. Contemplating one more step towards the understanding of extracellular pH signaling in fungi, we employed suppression subtractive hybridizations of cDNA, using the strains *biA1* and *palA1 biA1* respectively as tester and driver, both strains grown in low-Pi, pH 5.0. Out of a total of 600 cDNA clones analyzed by dot blot macro-array, 200 were confirmed as differentially expressed in the *biA1* strain, which represented 45 different unigenes. Northern blots confirmed differential expression of three heat shock proteins, HSPs 30, 70, and 90, down-regulated in the mutant *palA1 biA1*. Our data contributes to recognize molecular mechanisms involved in pH signaling as also to understand the functionality of gene *palA1*.

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