

## **KeaA, A *DICTYOSTELIUM* KELCH - DOMAIN PROTEIN THAT REGULATES THE RESPONSE TO STRESS AND DEVELOPMENT**

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The *keaA* gene codes for a kelch domain protein with six kelch repeats, a zf-C3HC4 domain and a cysteine-rich sequence located in the mid-portion of the protein. A morphological analysis of deficient cells in *keaA* during multicellular development indicated that this is required for the cells to efficiently participate in the process. Cells where the *keaA* gene has been disrupted express low levels of *pkaC*, *acaA* and *carA* during aggregation. This may be the reason why these cells are delayed in the completion of the developmental process. With the objective of confirming a role for *keaA* in the control of the development the effect of the over-expression of the cysteine-rich domain and Kelch domain was analysed. The results indicate a role for the cysteine-rich domain in the regulation of development. *keaA* expression was also analysed in wild type cells during exponential growth and the results indicate an induction of *keaA* similar to the observed on wild type cells in response to nutritional stress. Additionally, gene expression in response to compounds that generate redox stresses is being studied using cDNA microarrays.