Yeast Genomics for Studying Environmental Stress Response

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In our laboratory, we are accumulating expression profiles of mRNA after exposed yeast cells to many kinds of stress conditions using yeast DNA microarray. So far, approximately 50 kinds of stress conditions were analyzed from at least three independent cultures. In this symposium, I will overview expression profiles for 50 kinds of stress conditions and characterize induced genes after stress conditions. In addition, I will also focus on the effect of patulin to yeast cells. Patulin, 4hydroxy-4H-furo[3,2c]pyran-2(6H)-one, is one of the most popular and characterized mycotoxin observed in agricultural products. The mechanisms of patulin toxicity were studied by the collaboration between Korean and Japanse scientists.