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**Regulation of Gene Expression for Amino Acid Biosynthesis
in the Yeast, *Sacchromyces cerevisiae***

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Regulation of enzyme synthesis by transcriptional and translational control systems provides rather stable adaptation to change of amino acid level in the growth medium, while manipulation of enzyme activity through endproduct feedback inhibition represents rather short-term and reversible ways of adjusting metabolic fluctuation of amino acid level. Various control mechanisms interplay to regulate genes encoding enzymes for amino acid biosynthesis in the yeast, *Sacchromyces cerevisiae*. When amino acids are in short supply, genes under a cross-pathway regulatory mechanism or general amino acid control (general control) increase their action, in which Gcn4p is the major positive regulator of gene expression. When cells are cultured in minimal medium, basal level expression is also regulated by supplementary control elements, where inorganic phosphate level is additionally involved. Most of amino acid biosynthetic genes are also regulated by the level of endproduct of the pathway. This pathway-specific regulatory mechanism is called specific amino acid control (specific control), under which gene expression is reduced when endproduct is present in the medium. Derepression of a gene through general control can be usually overridden by repression through specific control, where the endproduct level of that particular pathway is high and not limiting. In this presentation, regulatory factors for basal level expression and general control of yeast amino acid biosynthesis will be discussed, in addition to pathway-specific repression patterns and interaction between cross- and specific-control mechanisms. Preliminary results are also presented from the investigation of the cloned genes in the threonine biosynthetic pathway of the yeast.