
Book reviews

Strathern, J.N.; Jones, E.W.; Broach, J.R. (eds): The Molecular Biology of the Yeast *Saccharomyces*: Metabolism and Gene Expression, Monograph 11B. Cold Spring Harbor: Cold Spring Harbor Lab. 1982. 800 pp., several figs. Hard bound \$ 90.00.

This second volume of the monograph from Cold Spring Harbor Laboratory dealing with the molecular biology of yeast is, like the first volume (reviewed by A.F. Croes in vol. 63, p. 306 of this journal), a pleasure to read. It consists of fourteen reviews and an up-to-date version of the genetic map of *Saccharomyces cerevisiae*, all written by experts. There has been a growing need for an assembling publication, both for workers in the field and for other scientists with interest in a selected topic. The reviews cover the following: carbohydrate and nitrogen metabolism, galactose utilization and phosphatase genes, membrane lipids, the yeast cell wall, transport and the secretory process, amino acid and nucleotide biosynthesis, initiation of translation, suppression and transfer RNA genes, the yeast ribosome, RNA polymerases and recombinant DNA research with yeast. The basis throughout these topics is, of course, our genetic knowledge of this organism.

It is a stimulating experience to come up against focuses in new directions and to see the evaluation of observations which

have not been brought together before. Just to mention a few subjectively chosen examples, I was excited to read the thoughtful 119-page paper by E.W. Jones and G.R. Fink dealing with the regulation of anabolic pathways. It includes discussion of the biosynthesis of all twenty amino acids, nucleotides and single carbon metabolism. For each pathway the control of metabolic flow and enzyme levels is thoroughly discussed. A very noteworthy table compiles the repression-derepression responses for enzymes of amino acid biosynthesis and their mode of regulation. Two papers by T.G. Cooper reviews nitrogen metabolism and transport processes. They focus on the regulation and integration of metabolism in a cell, not only by induction and expression of enzyme synthesis, but by transport and by metabolite compartmentation. It seems likely that the study of yeast in the near future will offer a much more dynamic view of regulation. Another relatively new, promising area is the study of the macromolecular secretion process reviewed by R. Schekman and P. Novick.

The editors have certainly succeeded in collecting a comprehensive, timely and informative monograph.

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