

## **Control Analysis of Yeast Free-Energy Metabolism**

**Che S. Pillay**, Jan-Hendrik S. Hofmeyr, Jacky L. Snoep and Johann M. Rohwer

Triple-J Group, Department of Biochemistry, University of Stellenbosch, South Africa

Supply-demand analysis of yeast free energy metabolism has been described in glucose-limited chemostat conditions (1). Under these conditions, flux control of fermentative energy metabolism lay primarily in the supply block (1). We extend these findings by describing the free-energy metabolism supply-demand characteristics for yeasts grown under nitrogen-limiting conditions. Yeast was grown under nitrogen-limiting conditions, and the rate characteristics of the supply and demand blocks determined by modulation. These results allow for yeast energy metabolism to be described over a wide range conditions, allowing further detail to be incorporated into current yeast metabolism models.

1. Kroukamp et al. (2002) Mol. Biol. Rep 29: 203-209