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Role of Snf3 in glucose homeostasis of *Saccharomyces cerevisiae* (review)

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The non-transporting, transporter-like molecular tasting devices Snf3 (1) and Ssy1 (2,3,4,5) help yeast increase amounts of relevant permeases in response to *extracellular* nutrients. On the other hand, conditions that enhance *intracellular* concentrations of some nutrients influence the involved signal pathways in directions opposite to those caused by extracellular nutrients (6,7), a phenomenon predicted to contribute to intracellular nutrient homeostasis. Although significant, the influence of intracellular leucine on signaling from Ssy1 is relatively modest (6), whereas the conditions with enhanced intracellular glucose concentrations (7) caused a strong decrease in signaling from Snf3, suggesting an important role of Snf3 in intracellular glucose homeostasis. Strategies for studies of this role will be discussed.

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