Late Abstract

• 13-47

Regulation of the Mcs2 C-type cyclin in fission yeast.
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CDK activation requires activating phosphorylation of a conserved residue in the T-loop by the CAK (CDK-activating kinase). In both fission yeast and higher eukaryotes, CAK is a trimeric complex composed of Mcs6-Mcs2-Pmh1 or its homologue [1–3]. Two hybrid assays revealed interaction of both Mcs2 and Pmh1 with Shp1, a subunit of the SCF ubiquitin ligase. This prompted us to test the stability of these CAK regulators. Although the steady-state level of Mcs2 does not seem to change during the cell cycle [4], we show that it is strongly correlated to Mcs6 kinase activity and that Mcs2 was nearly undetectable when Mcs6 was strongly overexpressed. Interestingly, this effect is reversed by a mutation in *shp1*. Taken together, these results suggest a putative regulation of Mcs2 by Mcs6 phosphorylation and SCF ubiquitin ligase complex. Thus, the hypothesis is under investigation. (1) Hermand D, Westerling T. Pihlak A, *et al*. 2001. *EMBO J* 20: 82–90. (2) Hermand D, Pihlak A, Westerling T, *et al*. 1998. *EMBO J* 17: 7230–7238. (3) Kaldis P. 1999. *Cell Mol Life Sci* 55: 284–296. (4) Molz L, Beach D. 1993. *EMBO J* 12: 1723–1732. S.B. is a FNRS Research Fellow. D.H. is a FNRS Scientific Research Worker. L.T. is recipient of a FRIA Fellowship.

• 14-32

Characterization of the C-less Pho84 high-affinity phosphate transporter of *Saccharomyces cerevisiae*.
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One of the ways cells respond to fluctuating environmental conditions is through altered gene expression Signals on the availability of vital nutrients are modulated across the plasma membrane to the cell interior. As one of the essential nutrients in living organisms, phosphate plays a pivotal role in the building components of several cellular processes. In *Saccharomyces cerevisiae* signals of the presence or absence of repressible amounts of extracellular inorganic phosphate are regulated by the *PHO* regulatory pathway [1] and at least two major systems of transport are known to be involved in the acquisition of phosphate, the high-affinity and low-affinity transport systems, respectively, Pho84p is part of the high-affinity uptake system and has been expressed, purified and functionally reconstituted [2]. In order to elucidate functional and structural aspects of Pho84p, a C-less version of the wild-type protein has been created and its kinetics characterized *in situ*. The results obtained suggest that the native cysteins of the Pho84 protein are functionally dispensible and are not required for correct protein folding. (1) Kaffman A, Herskowit I, Tjian R, O'Shea EK. 1994. *Science* 263: 1153–1156. (2) Berhe A, Fristedt U, Persson BL. 1995. *Eur J Biochem* 227: 566–572.

