

ANALYSIS OF THE *SACCHAROMYCES CEREVISIAE* EXOSOME ARCHITECTURE AND OF THE RNA BINDING ACTIVITY OF RRP40P

J.S. Luz¹, J.R. Tavares¹, F.A. Gonzales, M.C.T. Santos¹ and C.C. Oliveira¹

¹Department of Biochemistry, Institute of Chemistry, University of São Paulo, São Paulo, SP 05508-900, Brazil.

The exosome is a complex of eleven subunits in yeast, involved in RNA processing and degradation. Despite the extensive *in vivo* functional studies of the exosome, little information is yet available on the structure of the complex and on the RNase and RNA binding activities of the individual subunits. The current model for the exosome structure predicts the formation of a heterohexameric RNase PH ring, bound on one side, by RNA binding subunits, and on the opposite side, by hydrolytic RNase subunits. Here, we report protein-protein interactions within the exosome, confirming the predictions of [constituents](#) of the RNase PH ring, and show some possible interaction interfaces between the other subunits. We also show evidence that Rrp40p can bind RNA *in vitro*, as predicted by sequence analysis.

Supported by: FAPESP and CNPq