

P036 Analysis of protein–protein interactions involving splicing factor Snu13p

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Removal of introns from pre-mRNA is carried out by the spliceosome. The spliceosome is composed of U1, U2, U4/U6 and U5 snRNAs and numerous proteins, which are assembled into snRNPs or exist as non-snRNP factors. *S. cerevisiae* splicing factor Snu13p associates with the U4 snRNP and binds directly to the U4 snRNA. It is the only yeast splicing factor that also associates with box C/D snoRNPs, binding to the box C/D motif in the snoRNA. Previous work has focused on the interaction of Snu13p with these RNAs. Here, two complementary approaches have been used to analyse the interaction of Snu13p with other proteins. Firstly, a targeted yeast two-hybrid assay has been used to investigate interactions between Snu13p and other U4 snRNP and box C/D snoRNP proteins. This analysis led to the identification of an interaction between Snu13p and U4/U6 snRNP-specific Prp4p. To identify the region of Prp4p responsible for binding, mutants of Prp4p are currently being tested for their ability to interact with Snu13p. Secondly, we have solved a crystal structure of Snu13p. Buried Snu13p residues have been selected for mutagenesis in an attempt to identify temperature-sensitive Snu13p mutants. Temperature-sensitive mutants will be used in genetic screens to identify proteins that interact with Snu13p.