

**P043** Structure–function studies of Prp8 protein  
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Prp8 is the largest protein involved in nuclear pre-mRNA splicing, and highly conserved from yeast to man. It is a component of U5 snRNPs and is an essential splicing factor. Evidence from genetic studies in yeast and from RNA-protein interaction studies in both yeast and human systems place it at the catalytic centre of the spliceosome during both chemical steps of splicing. It has been proposed to act as a protein scaffold in the spliceosome, possibly anchoring RNAs in the catalytic centre and regulating conformational changes that are important for activation of the spliceosome. Interestingly, mutations in human Prp8 have been implicated as a cause of an autosomal dominant form of Retinitis Pigmentosa, a severe form of blindness.

As Prp8 protein is unique, having no obvious homology with other proteins, sequence analysis has provided no clues as to its function. Through two-hybrid screens we have identified interaction partners of Prp8p in *Saccharomyces cerevisiae*, and through bioinformatic analyses we have identified potential functional domains. Our ongoing studies of these interactions and the implications for Prp8p function will be presented.