

**P034** CRISPR: a novel prokaryotic immune system and its associated proteins in *Sulfolobus solfataricus*

**Melina Kerou and Malcolm F. White**

*Centre for Biomolecular Sciences, University of St Andrews*

The CRISPR (clustered regularly interspaced short palindromic repeats) family of prokaryotic repeats, in conjunction with a large group of CRISPR-associated protein families (referred to as the CASS system), constitute a prokaryotic defence system against infections from extrachromosomal elements analogous to the small interfering RNA system in eukaryotes. The CRISPR-associated RAMP (Repeat Associated Mysterious Proteins) module is a set of six proteins with representatives in all CASS subtypes, predicted to be involved in RNA binding. Here we report the purification and initial functional and structural study of the RAMP protein complex in *Sulfolobus solfataricus*.