

P029 Characterization of the *Sulfolobus solfataricus* proliferating cell nuclear antigen and its interaction partners
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The proliferating cell nuclear antigen (PCNA) is a processing factor in archaeal and eukaryal DNA processes. Theoretically, PCNA provides a platform to which DNA replication and repair proteins interact with to fulfil their functions. However, it remains to be established as to how many different proteins interact with PCNA and how they do that. We use *Sulfolobus solfataricus* PCNA (SsoPCNA) as a model to study these questions. As in Eukarya, several PCNA partners interact with PCNA via a conserved sequence (the PIP-box) have been identified in Archaea. But it is unclear whether there is alternative means of PCNA-partner interaction.

We would like to use *in vivo* pull-down assay to identify new PCNA partners in *S. solfataricus* P2. To do that, SsoPCNA genes have been cloned into *E. coli* and *Sulfolobus* over-expression vectors. The next step is to express PCNA proteins in *E. coli* and in *Sulfolobus*. PCNA protein of different source will be purified and used for characterization and for pull-down experiments to isolated new PCNA partners. Any new partners, once isolated, will then be analyzed by MALDI-TOF/TOF. The obtained results will be presented.