## m07.p06

## The crystal structure of the DNA-binding domain of G1P from bacteriophage SF6

<u>Stefano Benini</u>, Maria Chechik, Miguel Ortiz-Lombardia, Sigrun Polier, Mikhail B. Shevtsov, Daniela De Luchi, Juan C.Alonso, Alfred A.Antson

York Structural Biology Laboratory, University of York, Heslington, York YO10 5YW United Kingdom. E-mail: benini@ysbl.york.ac.uk

## Keywords: terminase, bacteriophage, G1P

DNA packaging in tailed bacteriophages and several evolutionarily related animal viruses, such as herpes viruses, is controlled by a viral-encoded terminase. Like in a number of other phages, in SPP1 and SF6 *Bacillus subtilis* bacteriophages the terminase complex consists of two proteins, G1P and G2P. G1P is involved in the specific DNA binding and recognition of the packaging initiation site (called *pac*) on the viral genomic DNA and modulates the activities of its partner, while G2P has ATPase and endonuclease activities. We present the structure of the N-terminal DNA binding domain of SF6 G1P and propose a model for its binding to the *pac* DNA.

