ESRF	**Experiment title:** Structure determination of the AMLl transcription factor	**Experiment number:** LS-1225
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Report:

Our objective is to determine the X-ray crystal structure of the human acute myeloid leukaemia associated transcription factor AMLl, in its heterodimeric form. Recurrent chromosomal translocations are a common feature of human acute leukaemias. The modular structure of transcription factors allows normally unrelated sequences from different chromosomes to be recombined into hybrid genes encoding fusion products with altered function. Fusion protein products involving the human ***AMLI*** gene or the gene encoding its heterodimeric partner, ***CBFβ***, are the most common abnormalities seen in acute leukaemia.

In a very brief trial conducted at ID14-3, we collected a complete 3.2 Å resolution, 100 K data set for the heterodimer. The crystals have a unit cell of a= 132 Å, c=106 Å with symmetry P6122. Low resolution analysis using a laboratory X-ray source has since identified a heavy atom derivative of the protein that will be used for subsequent data collection at ESRF.