**Poster Presentation**

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## *Structure of mouse Clr-g, a CTL ligand for NK receptor NKR-P1F*

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Natural killer (NK) cells are large granular lymphocytes with innate immune reaction against tumor cells or cells affected by viral infection. They have a variety of receptors on their surface which mediate contact with cells tested by NK cells. Using X-ray crystallography, we determined a structure of an extracellular part of mouse C-type lectin related protein g (Clr-g, [1], PDB code 3RS1), a ligand for NK receptor NKR-P1F. The ligand and the receptor are both of C-type lectin like fold and this is the first determined structure of a CTL ligand of an NK receptor. The protein was produced in E. coli. The rod-like crystals appeared by spontaneous crystallization of the pure protein (2.5 mg/ml) on tube walls. Diffraction data of the vitrified crystal were measured at synchrotron BessyII of HZB in Berlin and were processed up to 1.95 Å. The protein was found in the form of dimers similar to that of CD69. The N-terminus of the chain (residues Met, Asn, Lys) is in the crystal bound to a neighbor dimer and shows thus that binding of a peptide to mouse Clr-g is possible, although not expected or confirmed by other experiments known to us. A model of interaction of Clr-g with NKR-P1F was designed based on electrostatic complementarity of both molecules. This work was supported by the Czech Science Foundation (grant No. P302/11/0855), Ministry of Education, Youth and Sports of the Czech Republic (grant No. LG14009) and by the project BIOCEV CZ.1.05/1.1.00/02.0109 from the ERDF.

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