EUROPEAN **S**YNCHROTRON **R**ADIATION **F**ACILITY

INSTALLATION EUROPEENNE DE RAYONNEMENT SYNCHROTRON

	Experiment title: Structural role of the lipid component in multicomponent lipoplexes containing complexed and condensed DNA and in their dynamic interaction with model membranes	**Experiment number**: SC 3866
Beamline: BM26B	**Date of experiment**: from: 16/07/2014 to: 18/07/2014	**Date of report**:
Shifts: 6	**Local contact(s)**: Portale Giuseppe	*Received at ESRF:*

Names and affiliations of applicants (* indicates experimentalists):

*Del Favero Elena,

*Cantù Laura,

*Motta Simona,

*Rondelli Valeria,

*Brocca Paola

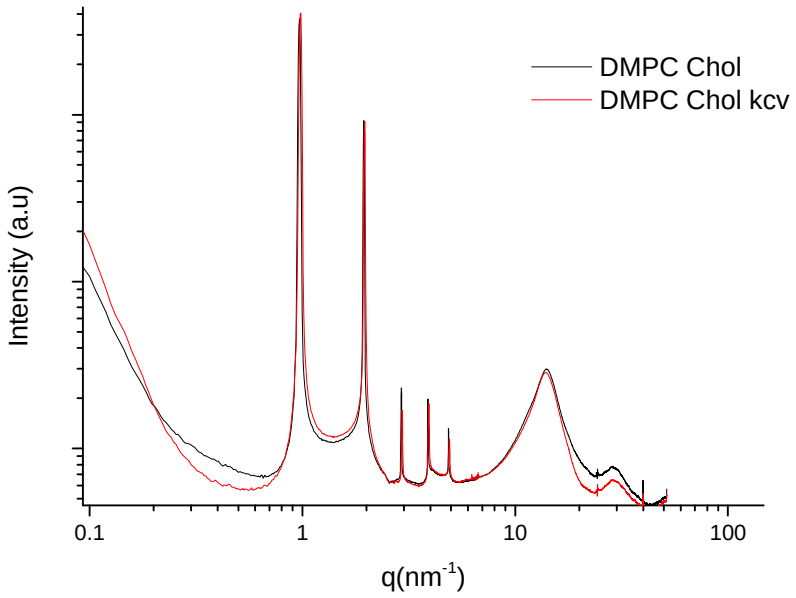
*Curcio Valentina

University of Milan

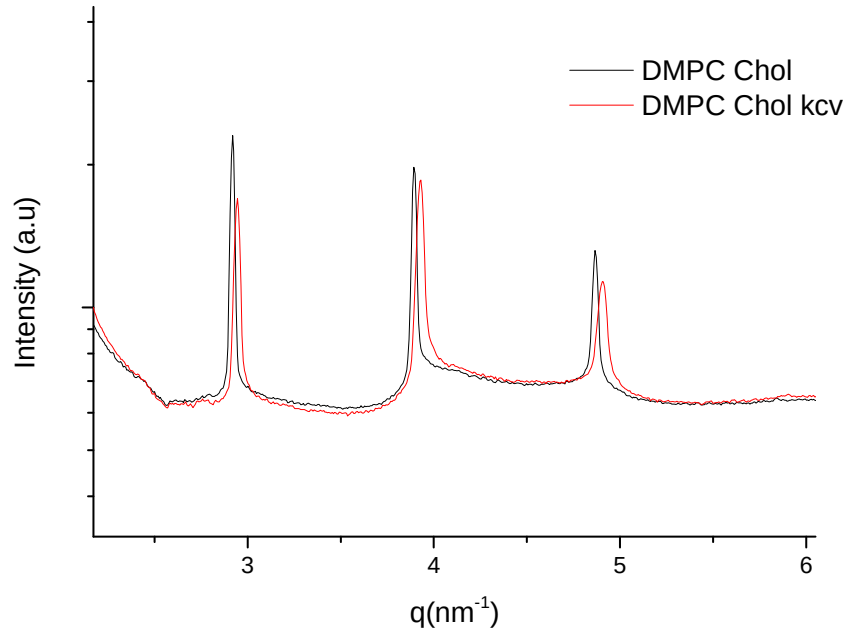
Report:

We succeeded in inserting the channel MA1D in model bilayers of DMPC and DPPC and we performed SAXS and WAXS on multilamellas at the maximum swelling. Data show an effect of the channel insertion both on the interlamellar distances and on the local order of the lipid chains at wide angle. Results suggest an interesting effect of cholesterol-channel coupling that we aim to investigate deeply.

In the graphics we report an example of interaction of MA-1D channel with mixed multilamellar systems of phospholipid 20% cholesterol altering the interlamelalr distance.



Full q range is reported in the first graph, consisting of merged SAXS and WAXS spectra.



An enlargement.