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ESRF

Experiment Report Form

The double page inside this form is to be filled in by all users or groups of users who have had access to beam time for measurements at the ESRF.

Once completed, the report should be submitted electronically to the User Office using the **Electronic Report Submission Application:**

http://193.49.43.2:8080/smis/servlet/UserUtils?start

Reports supporting requests for additional beam time

Reports can now be submitted independently of new proposals – it is necessary simply to indicate the number of the report(s) supporting a new proposal on the proposal form.

The Review Committees reserve the right to reject new proposals from groups who have not reported on the use of beam time allocated previously.

Reports on experiments relating to long term projects

Proposers awarded beam time for a long term project are required to submit an interim report at the end of each year, irrespective of the number of shifts of beam time they have used.

Published papers

All users must give proper credit to ESRF staff members and proper mention to ESRF facilities which were essential for the results described in any ensuing publication. Further, they are obliged to send to the Joint ESRF/ ILL library the complete reference and the abstract of all papers appearing in print, and resulting from the use of the ESRF.

Should you wish to make more general comments on the experiment, please note them on the User Evaluation Form, and send both the Report and the Evaluation Form to the User Office.

Deadlines for submission of Experimental Reports

- 1st March for experiments carried out up until June of the previous year;
- 1st September for experiments carried out up until January of the same year.

Instructions for preparing your Report

- fill in a separate form for each project or series of measurements.
- type your report, in English.
- include the reference number of the proposal to which the report refers.
- make sure that the text, tables and figures fit into the space available.
- if your work is published or is in press, you may prefer to paste in the abstract, and add full reference details. If the abstract is in a language other than English, please include an English translation.

ESRF	**Experiment title:** Structural studies of nectin-1 a cell adhesion molecule and cell entry receptor for Herpes Simplex Virus -1 and -2	**Experiment number**: MX-267
Beamline: ID14-3 ID14-4	**Date of experiment**: from: October 3rd to: October 4th from: November 25th to: Novemebr 26th	**Date of report**: 26/07/05
Shifts: 3 3	**Local contact(s)**: Dr. Stephanie Monaco Dr Raimond Ravelli	*Received at ESRF:*

Names and affiliations of applicants (* indicates experimentalists):

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Report:

Introduction

Herpes Simplex Virus (HSV) entry into cells requires binding of the envelope glycoprotein D (gD) to one of several cell surface receptors. Nectins are Ca2+-independent immunoglobulin-like cell-cell-adhesion molecules. Nectins homophilically and heterophilically trans-interact to form a variety of cell-cell junctions, including cadherin-based adherens junctions in epithelial cells and fibroblasts in culture, synaptic junctions in neurons, in cooperation with, or independently of, cadherins. Nectin-1 binds HSV glycoprotein D and has been shown to be a functional cell entry receptor for both HSV -1 and -2 virus. We aim to determine the structure of nectin to understand the mechanism of both homophilic and heterophilic interactions and to characterize the determinants for nectin-gD binding. Ultimately we aim to crystallize and determine the structure of a gD-nectin complex.

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Data Collected

Several native crystals were initially screened. Three highly redundant native data sets have been collected with the best one extending to 3.0 Å resolution (space group $P6_322$ with $a = b = 107.3$ Å and $c = 137.3$ Å; R_{merge} 6.2% (48% last resolution shell)).