

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 via the User Portal:

<https://www.esrf.fr/misapps/SMISWebClient/protected/welcome.do>

Reports supporting requests for additional beam time

Reports can 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.



	Experiment title: Structural studies on the coupling of transcription and translation	Experiment number: MX-2209
Beamline: CM01	Date of experiment: from: 22/07/2019 to: 25/07/2019	Date of report: 08/08/2019
Shifts: 9	Local contact(s): Michael Hons	<i>Received at ESRF:</i>
Names and affiliations of applicants (* indicates experimentalists): Helgo WEIXLBAUMER Robert FAGIEWICZ* Department of Integrated Structural Biology Institute of Genetics and Molecular and Cellular Biology IGBMC - UMR 7104 - U 1258 1, rue Laurent Fries BP 10142 67404 ILLKIRCH CEDEX FRANCE		

Report:

We have applied for 9 shifts on the Titan KRIOS to collect data on a IFT dynein mutant. We were scheduled in July 2019 (22/07 – 25/07). Our local contact was Michael Hons. One user from my team, Robert Fagiewicz, traveled to the ESRF.

We brought several grids from a batch, which was pre-screened locally on our Polara microscope. Thanks to the outstanding support by our local contact, Robert was able to identify a good grid very quickly, select enough squares and holes and collect data that gave us about 4000 micrographs.

We have picked more than 500.000 good particles. The class averages after 2D classification clearly revealed secondary structure element like α -helicies. We have now obtained a 3D reconstruction of the IFT dynein mutant at a resolution of 3.6 Å (Figure1). We consider this trip a complete success.

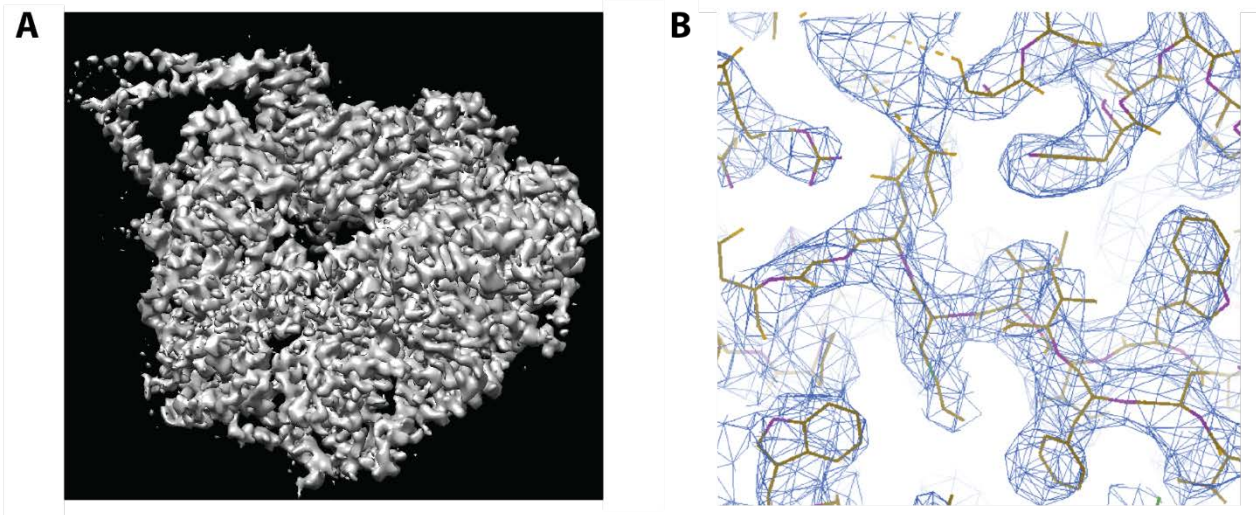


Figure 1: Obtained IFT dynein cryoEM reconstruction

(A) Overall map after postprocessing. (B) Example of the quality of the density. Side-chains can clearly be resolved.