



Experiment title:
Structural characterization of Potato virus X particles and coat protein

Experiment number:
MX-2171

Beamline: CM01	Date of experiment: from: 11/02/2019 to: 13/02/2019	Date of report: 09/09/2019
Shifts: 6	Local contact(s): Eaazhisai Kandiah	<i>Received at ESRF:</i>

Names and affiliations of applicants (* indicates experimentalists):

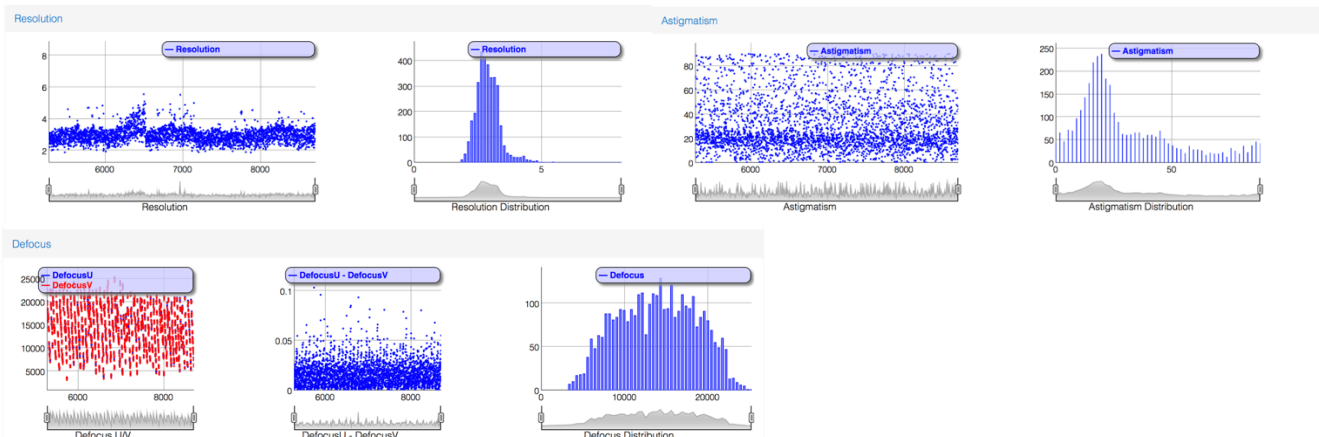
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Report:

The project aimed to reconstruct the 3D structure of a chimeric Potatoes Virus X (PVX), a filamentous plant virus belonging to the *Alphaflexviridae* family and the type-member of the genus *Potexvirus*. The allocated beamtime was used to collect a dataset of 3210 movies (40 frames, dose of 0.9 e-/Å² per frames, magnification: 165000, pixel size: 0.827 Å/pixel). No inconvenience happened during the acquisitions that gave us a good quality dataset. Data collection was monitored using the ExiMX interface and preliminary data processing (motion correction and CTF estimation) was done simultaneously as the data was collected (**fig. 1**). The resulting aligned micrographs were used for the 3D reconstruction in Relion-3. The 2D (**fig. 2a**) and 3D classification and confirm the quality of the acquisition and the preliminary refinement give us a 3 Å resolution map (**fig. 2b**) (resolution was calculated with the gold-standard FSC inside Relion-3).



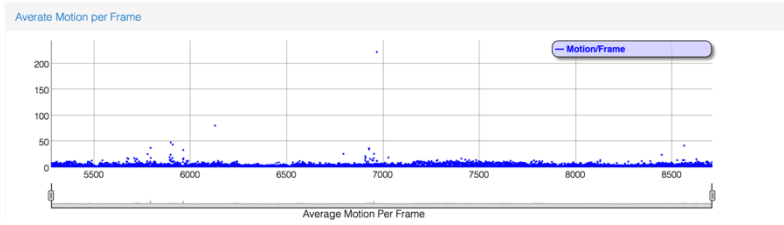


Fig 1 acquisition statistics

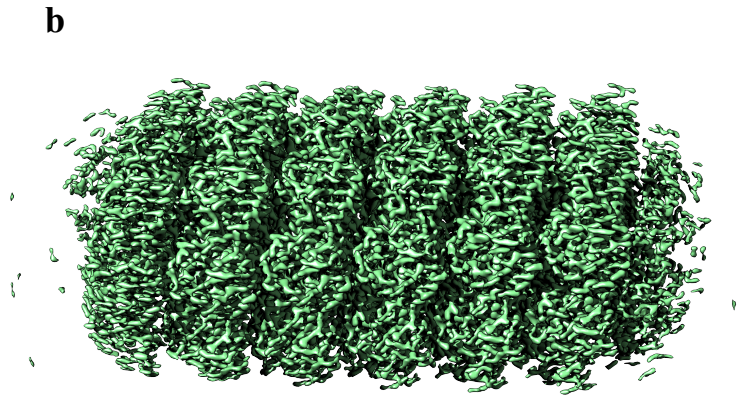
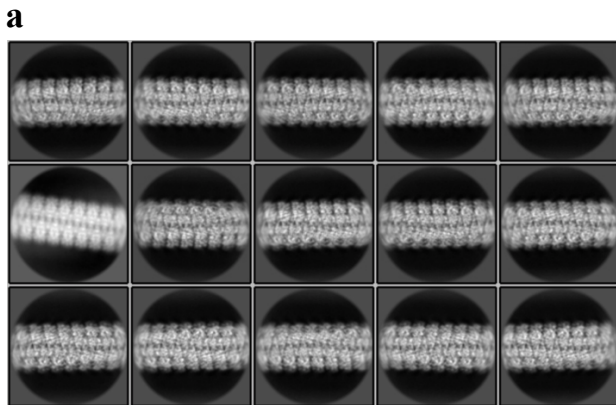


Fig2 preliminary analysis results