

Activity Report –CM01 – 09 to 12 November 2018

We aim at solving the structure of temporal supercomplexes formed around Photosystem I (PSI) during steady state and under stress conditions by the cryo EM technique. As a first step we compared the structure of isolated Dunaliella PSI obtained by X-ray crystallography and cryo-EM. We solved the crystal structure of this supercomplex at 3.2 Å resolution (manuscript in preparation). In this experiment we attempted at solving the structure of larger Dunaliella PSI complex containing 6 additional subunits. We collected 3700 movies at the ESRF cryo-EM facility. Initial 3D classification revealed that indeed the PSI supercomplex is larger than the one solved to 3.2 Å resolution (see figure). We will need additional data collection to solve it to the desired 3 Å resolution.

The 3 days experiment exceeded all my expectations.

