

**EPN BAG report**  
**RNANP sample**  
**02-04 April 2022**

**Aim of the project:** characterization of the influenza genome encapsidation by the viral nucleoprotein NP. We established a protocol to reconstitute nucleocapsid-like particles in vitro and we had promising preliminary cryo-EM data. With this session we largely increased the number of movies collected and thus the number of particles (session 02-04/11/22). This strategy permitted the selection of the straightest helical particles which enabled the reconstruction of the RNA-NP complex in the context of the RNP-like helix at 8.7 Å (and a local reconstruction at 5.3 Å). These results revealed interesting details of the NP-RNA and NP-NP interaction and provide novel insights on influenza genome encapsidation. A publication describing that structure is currently submitted.