

## Virtual Electron Tomography Course

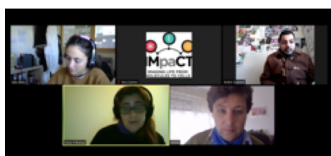
On November 23 – 26, 2020, the IMPaCT partner from Weizmann organized the [Virtual Electron Tomography Workshop](#). During the 4-day course, we had the pleasure to welcome lectures from several team members from the Weizmann Institute, that have shared their expertise on Electron Tomography.

In this virtual setting, we were able to welcome a total of 88 participants registering from 14 different countries.

This online course offered basic theoretical knowledge with the aims of introducing the basics of EM involved in cryo-tomography, of providing a basic understanding of the underlying principles governing protocols for imaging, specimen preparation, and data processing, all of which will serve as a foundation for the hands-on workshop. Furthermore, this course aimed to expose the

attendees to a range of scientific explorations made possible by cryo-tomography and to provide an opportunity for consortium participants to present their project goals and receive feedback from the Weizmann group. This was also further promoted during an extraordinary session organized on November 30<sup>th</sup>, exclusively for the consortium students and researchers. During this extra session, the Consortium provided the possibility to closely interact with the Weizmann partner team members and to take full advantage of their expertise.

A big thank you to Michael Elbaum, Sharon Wolf, their team members, and the Weizmann Conference Centre for organizing this IMPaCT Online Course. We look forward to the hands-on Workshop next year at the Weizmann Institute.



## IMPACT Cryo-EM Seminar with Misha Kudryashev

IMPACT had the pleasure to welcome Misha Kudryashev on December 3<sup>rd</sup>, 2020, as an expert guest speaker in one of the IMPaCT Cryo-EM seminar series. Due to the COVID-19 pandemic, Misha's visit has to be organized as virtual meetings and webinar.

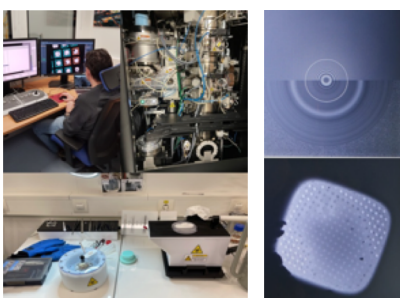
Several virtual meetings with the IMPaCT coordination and selected team members were organized, during which the IMPaCT team had the opportunity to present the project mission and main activities, the Cryo-EM network that is being established in Portugal, and to discuss ongoing

projects. Misha Kudryashev was very enthusiastic to meet the IMPaCT project and the team, and has shared valuable inputs and advices.

Kudryashev webinar was about "[Structure of ion channels in membranes by cryo-EM](#)".

We would like to thank Misha Kudryashev once again for his availability to spend the day with us and for the great lecture and discussions.

Recording of this webinar is available on [IMPACT's YouTube Channel](#).



## A landmark for IMPACT & for the CryoEM history at ITQB and at Portugal

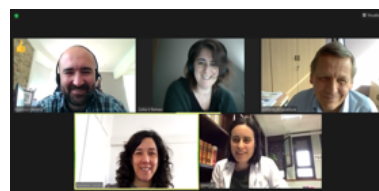
January 27<sup>th</sup>, 2021, was a very important day for the IMPaCT project.

It was the first time that the IMPaCT ITQB NOVA team members have collected CryoEM data on the ESRF Titan Krios (CM01).

This was only possible because of our IMPaCT network, in this case the collaboration with our partner Sarah Butcher Lab at the University of

Helsinki. This instrument time was allocated to our [MX UNIT](#) as part of the Iberian CryoEM BAG at the ESRF.

Thanks also to the [European Synchrotron Radiation Facility](#) (ESRF, Grenoble) for all their assistance.



## IMPACT co-coordinator leads one of the Iberian FCT-ALBA collaboration Projects

Iberian FCT-ALBA synchrotron collaboration Project awarded to the Portuguese team headed by Dr. Célia Romão (ITQB NOVA) and Dr. Federico Herrera (FCUL/BioISI), in collaboration with Dr. Vanesa Fernandez (University of Oviedo); and, from the ALBA, the teams are headed by Dr. Eva Pereiro (MISTRAL beamline) and Dr. Roeland Boer (XALOC beamline). This project aims to "Imaging phosphorylation-dependent stress response pathways in prokaryotic and eukaryotic cells" and will include state-of-the-art imaging methodologies, namely correlative microscopy, cryo soft X-ray tomography and soft X-ray

transmission microscopy, as well as structural biology studies using X-ray crystallography. The postdoctoral researcher will be funded by both FCT and ALBA and employed by ALBA. This will be a fascinating and challenging pilot project that will contribute enormously to the scientific questions that are being addressed, especially by using imaging methodologies that are not currently implemented in Portugal, namely cryo soft X-ray tomography and soft X-ray transmission microscopy.

This is [one of the four](#) awarded projects within the Iberian FCT-ALBA collaboration.

