


IMpaCT

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<http://www.itqb.unl.pt/impact>

#cryoem_impact 

IMpaCT_cryoEM (@ICryoem) 

MX Unit

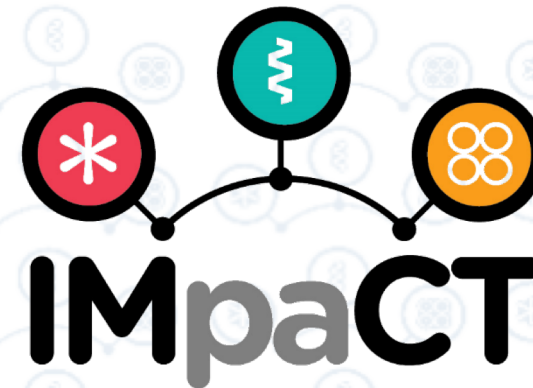
Oeiras, Portugal 

MXUnit_PT (@mxunit) 

mxunit.itqb 



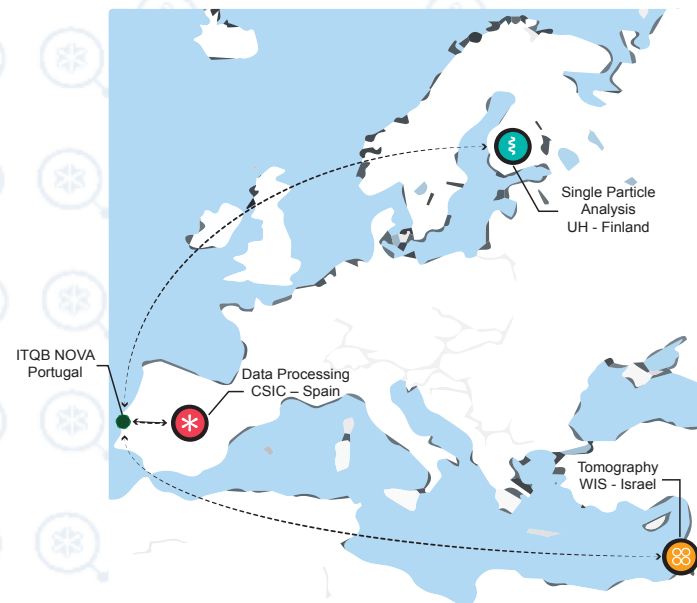
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IMPACT

IMAGING LIFE FROM MOLECULES TO CELLS

Cryo-Electron Microscopy applied to Structural and Cellular Biology



Cryo-Electron Microscopy

Cryo-Electron Microscopy (Cryo-EM) is a suitable and nowadays attractive alternative to X-ray crystallography to determine the structure of protein complexes which are not able to crystallize. Indeed, structures of large macromolecular complexes have been determined at near-atomic resolution with modern high-end instruments.

IMpaCT - Boosting Cryo-EM knowledge in Portugal

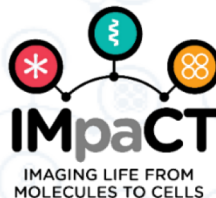
The main goal of this project is **knowledge transfer in Cryo-EM** methodologies from selected partners to ITQB NOVA researchers, allowing them to acquire expertise in **sample preparation**, **image acquisition** to high resolution and **data processing**, both for Single Particle Analysis and Cryo-Tomography.

To bring the knowledge on CryoEM to ITQB NOVA, we have established collaborations with three research Centres in Europe, with proven track record and expertise in the different aspects and applications of Cryo-EM:

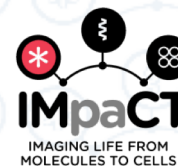
- Spanish National Research Council - National Centre for Biotechnology (**Spain**);
- University of Helsinki - Institute of Biotechnology (**Finland**);
- Weizmann Institute of Science (**Israel**).

With this strategy, our mission is to provide training and access to cryo-EM resources for Portuguese researchers. This knowledge will be the starting point of a **cryo-EM hub in Portugal**.

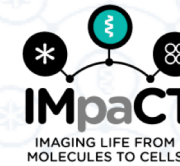
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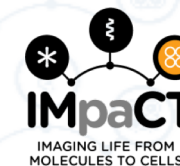
Training programme: Workshops



Data Processing
17-20 Sept 2019



**Single Particle
sample prep**
18-22 May 2020



**Cryo-Electron
Tomography**
18-22 Oct 2020



Mini-symposium on Pharmaceutical Cryo-EM applications

Fall 2021

Invited speakers

- Werner Kühlbrandt
- Helen Saibil
- Tamir Gonen
- Richard Henderson
- Misha Kudryashev

Other activities



**Career
development**



**Dissemination
& Outreach**



**Research
visits**