



MEDInPROT and JEOL

Workshop on Cryo-Electron Microscopy

ELTE TTK

1117 Budapest, Pázmány Péter sétány 1/a, 1.71 Pócza Jenő room

10th of January 2019. Thursday

Program

10 :30 Welcome by Prof. András Perczel

10:35 Short introduction of electron microscopy by Guillaume Lathus

10 : 45 Cryo-EM in Biology by Emanuel Katzmann PhD

Cryo-electron microscopy (cryo-EM) has taken enormous flight in recent years and has gained an enormous momentum resulting in the award for the Nobel Prize in Chemistry. Atomic level structural analysis of viruses and proteins derived by cryo-EM requires high stability hardware and software. JEOL proudly announces its latest offering in cryo-TEMs to facilitate this development in cryo-EM.

11: 40 Cryo-EM in Material Science by Guillaume Brunetti PhD

The development and subsequent application of new materials depends on a fundamental understanding of their structure and properties, and the bonding between atoms. Microstructural information and surface/bulk chemical analyses are readily obtained from these instruments with absolutely state-of-the-art results.

12: 40 Coffee break

13:00 Tomography by Sylvain Trépout, PhD

Introduction of Electron Tomography: a combination of cryogenic techniques for specimen preparation, electron microscopy for data collection, and tomographic reconstruction techniques for visualization in three dimensions.

14:00 Cryo-EM in practice by Guillaume Brunetti and Emanuel Katzmann

Cryo-EM in practice, tips and hints for users

14:40 Quiz

15:00 Lunch

For registration please send an email to medinprot@chem.elte.hu with the subject 'Cryo-EM 10th of January 2019.' until the 28th of December.



Emanuel Katzmann PhD

Graduate in Biology: University of Bremen,
Major in Microbiology, Biochemistry and
Genetics

PhD Max-Planck-Inst. f. Biochemistry (Prof.
Baumeister) and University Munich (LMU)(Prof.
Schueler): Bacterial structural biology – cryo
TEM

Since 2013 application specialist at JEOL – focus
(cryo) TEM for life sciences



Guillaume Brunetti PhD

PhD at the University of Metz
(France): development of new TEM methods
for the determination of strains in materials
with Convergent Beam Electron Diffraction
(CBED) technique

Semi-conductor and battery research in
Nuclear Research Center, Grenoble

Since 2012 TEM and FIB application specialist
at JEOL (Europe) SAS



Sylvain Trépout, PhD

INSERM Electron Microscopy Facility Manager

Master diploma in Structural Biochemistry
(supervised by Pr. Alain Brisson) obtained at
University of Bordeaux

Research Engineer Class 2 INSERM in the
U1196/UMR9187 (mixed
INSERM and CNRS research unit at Institute
Curie, Orsay, France