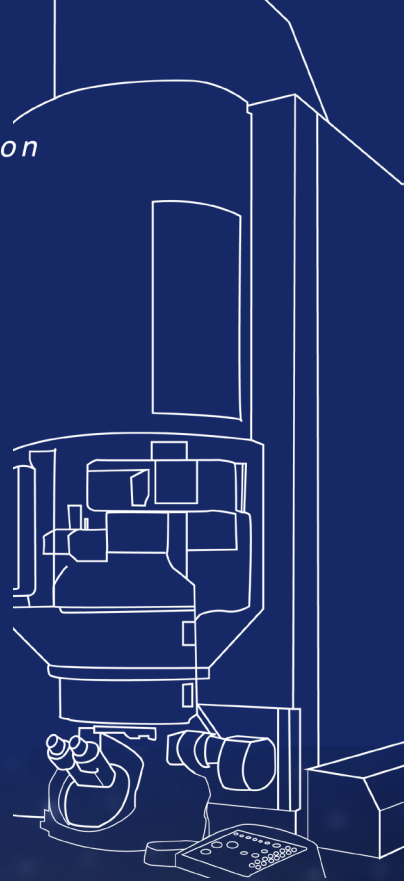


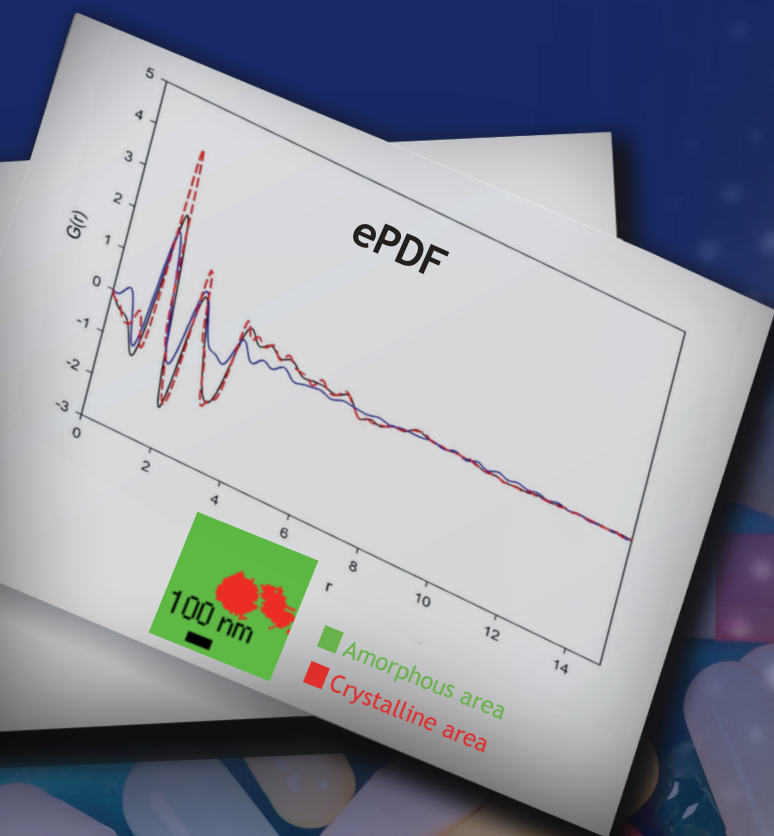


NanoMEGAS

Advanced Tools for electron diffraction



Identification of amorphous pharmaceuticals with electron Pair Distribution Function (ePDF)



Early crystallization
detection in Amorphous
Solid Dispersions (ASD)

TEM phase mapping
(amorphous/crystalline)
at nm scale and ePDF analysis

Full Amorphous Solid Dispersions (ASD) characterization

Determination of ASD stability
eg moisture vs temperature
API/polymer & polymer/polymer
interaction

Quantum Molecular Dynamics (QMD)
+ ePDF + API diffusion

Ab initio detection/ prediction
of API solid solubility / miscibility
limit

Electron Diffraction (ED) + ePDF

Early detection of Amorphous Phase
Separation (APS)

High-throughput
Quantum Molecular Dynamics + ePDF

High-throughput Quantum Molecular Dynamics (QMD)
constrained by TEM- Electron Diffraction to optimize
the design of drugs dosed in the form of ASDs

mml

Supercomputing
facilities



TEM microscopy

