Report Data collection during trip from 08.12.2016 – 09.12.2016

Project Ribosome Biogenesis:

Crystals were brought to measure data on crystals containing fragments of RRP5 protein encompassing the region between res. 1083 and the end of the protein. This region is expected to fold into 3 consecutive S1 domains followed by a Tetratricopeptide repeat (TPR) domain containing 7 repeats. Unfortunately, none of these crystals diffracted significantly or nicely. We thus did not collect any dataset from these crystals.

Project Ribosome:

Crystals were brought to collect data on complexes of *Thermus Thermophilus* 70S ribosomes co crystalized with peptides. Only a few crystals diffracted well enough to collect data. Out of this trip, only one dataset could be processed. One crystal gave promising diffraction. Unfortunately, mxcube lost connection during data collection and the data for this crystal were lost. I could get the masterfile.h5 (thanks to William Shepard) corresponding to this experiment but couldn't get the corresponding images.

Collaborative projects:

Other crystals from side projects and collaborative efforts with local groups at IECB were brought along for test measurements.

Some of these crystals diffracted nicely to 2.5 Å and several datasets were collected to ~2.75 Å due to heavy anisomorphism. Phasing is currently ongoing. Molecular replacement is currently being performed as protein models are already available. Unfortunately, no clear solutions have so far been found.

Data were also collected for other projects from the Guichard's research group. In particular, several complete datasets from short peptides made of compounds mimicking amino acids could be collected to high resolution (~1.8 Å). Unfortunately the resolution is not good enough for phasing using direct methods and molecular replacement attempts did not give clear solutions. In addition, numerous crystals containing a complex between these compounds and a fragment of the hDM2 protein were also tested. Unfortunately, these crystals did not diffract to sufficient resolution to attempt data collection.