CCP-EM Working Group 1

Harwell, Monday 9th May 2016

Minutes

Summary of Actions

Please alert Martyn Winn or Tom Burnley to anyone who should be included in WG1, and is not yet.	All
Contact other journals and make a decision on proceedings for future Spring Symposia.	MDW/TB
Investigate additional tutors for Relion workshops.	MDW/TB

1. Introduction to Chair (Peter Rosenthal) and Deputy Chair (Neil Ranson)

Peter Rosenthal (Crick) and Neil Ranson (Leeds) have been elected Chair and Deputy Chair of CCP-EM respectively. Their tenure is for 3 years, beginning with the start of the new grant i.e. February 2016.

2. Overview of CCP-EM and the new grant (Martyn)

The new MRC grant started at the end of February, and runs for 5 years. Applicants are Winn, Henderson, Kleywegt, Saibil, Roseman, Rosenthal, Bhella, Topf, Scheres and Huiskonen. The grant continues to fund Tom Burnley, and Colin Palmer has been recruited to the second position.

A workshop on the Dynamo software for subtomogram averaging was held at Harwell in December 2015. The first Icknield workshop on high resolution model building and refinement was held at Harwell in March 2016. Details are available from the Workshops/Courses page on the CCP-EM website.

A beta release of the CCP-EM software framework is now available (from the website). It includes applications for particle picking, rigid and flexible fitting, and high resolution coordinate refinement, as well as a complete set of software libraries for the development of novel applications. The CCP-EM website also hosts some 3rd party software tools.

3. Training programme

We have grant money for around 3 training events per year (as an average - we could have more smaller meetings or fewer larger schools). For the coming year, we have:

1. Instruct course on cryoEM in Madrid, May 17 - 20, 2016. CCP-EM will focus on model fitting, building and refinement, and will be represented by myself, Tom Burnley and Agnel Praveen Joseph. Ardan Patwardhan will be there for EMDB.

2. A Biochemical Society training day on data collection at eBIC in Sept. CCP-EM are providing some sponsorship, and we have a speaker slot.

3. A 1-day Relion course in Leeds, aiming for Sept 2016.

4. There is a suggestion of a joint IMOD course with the soft X-ray tomography people at Diamond.

There was interest in CCP-EM organising or co-organising an EMBO-style course, that is a week-long course covering all aspects of cryoEM.

There is continual demand for Relion courses. Sjors cannot do all these, and we need to train the trainers. There was a suggestion to insist that students do the tutorial first, so that the workshop could focus on advanced features. Action MDW/TB: investigate additional tutors for Relion workshops.

Training at eBIC was discussed. The centre has limited staff, and they are fully engaged with visiting users. Nevertheless, they view training as important. For comparison, MRC-LMB have trained 70 people on their Krios.

4. Future Spring Symposia (location, organisers, proceedings)

Last year, the Spring Symposium was attended by around 100 people, this year there are around 150 people. Judging by the speed of registrations, there is sufficient demand for a larger event. For comparison, the CCP4 Study Weekend is around 400 people. Limitations:

1) Venue: The Pickavance lecture theatre on the Harwell campus can take 200 people max. Also, hotel accommodation in the area is limited.

2) Cost: The CCP4 Study Weekend is heavily subsidised. We don't have the budget for that.

The meeting agreed we should aim for a larger meeting, around 200 delegates. Costs should be offset by charging a modest registration fee (to-date we have had no fee, to help establish the meeting).

There was general satisfaction with the Harwell site, although accommodation remains a problem. The next meeting could be tied-in with an opening event for eBIC.

There was a recent suggestion to publish the proceedings in Acta Cryst D (again, by analogy with the CCP4 Study Weekend). IUCr are keen, but there will be an associated cost us to have them open access. The meeting agreed this would be a good idea, but suggested that we should approach other journals as well, in particular J. Struct. Biol. which might have more visibility in the cryoEM field. Action MDW/TB: contact other journals and make a decision on proceedings.

5. EU interactions

Martin Walsh advertised iNEXT for transnational access to European Infrastructures (http://www.inext-eu.org/) which includes access to eBIC, NeCEN and CEITEC. iNEXT offers access through three different access themes and specific modalities through a peer-reviewed process. This includes a Structural Audit to assess a sample's suitability for structural studies, help in cryoEM sample optimisation, and transnational access to some of the best electron microscopes in Europe for single particle cryo-EM, CLEM, and other experiments.

CCP-EM is involved in the West-Life project (http://about.west-life.eu/) via STFC. The project is building a Virtual Research Environment to link together services and data in structural biology.

6. Role of CCP-EM in eBIC and other facilities

Tom Burnley (CCP-EM PDRA) is providing software support for eBIC. In particular, he is installing software packages on the Diamond compute systems, see “module avail EM”.

There were differing opinions on how much processing users wanted to do on-site, ranging from just wanting to get the data home to wanting an initial reconstruction. There is work going on at Diamond to provide some scripts for automated processing.