

Report of the EMBnet AGM 2011 Workshop, Oeiras, Portugal, 23-25 May, 2011



Teresa K Attwood¹, Andreas Gisel², Etienne de Villiers³, Erik Bongcam-Rudloff⁴, Domenica D'Elia², Pedro Fernandes⁵, Georgios Magklaras⁶

¹Faculty of Life Sciences and School of Computer Science, University of Manchester, Manchester, UK,

²CNR-Institute for Biomedical Technologies, Bari, Italy

³Beca-ILRI, Nairobi, Kenya

⁴Department of Animal Breeding and Genetics, Swedish University of Agricultural Sciences, Uppsala, Sweden

⁵Instituto Gulbenkian de Ciência (IGC), Oeiras

⁶The Biotechnology Centre of Oslo, The University of Oslo, Oslo, Norway

The 2011 AGM workshop took place at the Instituto Gulbenkian de Ciência (IGC) in Oeiras, Portugal, from 23-25 May (Figure 1). The goal of the workshop was to build on the demonstrable progress made during the previous year, in particular by helping to deliver on some of the plans outlined during the 2010 AGM. It was also an opportunity to build on our commitment to take EMBnet forward by embracing new partners and new activities. The following pages summarise the workshop content, discussions and conclusions.

Mini Symposium

The 2011 AGM satellite events began with a short scientific session, providing a snapshot of the latest advances in the development of a variety of bioinformatics tools to support 'omics' studies. The mini symposium opened with a talk entitled, "*Bioinformatics of comparative cell biology*", by José Pereira-Leal, from the Computational Genomics Laboratory of the IGC; his presentation described both RabDB, a comprehensive

resource for studying the regulation of membrane traffic pathways mediated by the Rab family of proteins, and mtocDB, a new resource that integrates microscopy data and molecular information to help characterise morphological variation observed in centrioles and centriole-associated structures. Matthias Haimel, from the European Bioinformatics Institute (EBI), UK, presented "*Velvet, Curtain and beyond*", describing some of the challenges and solutions for *de novo* genome assembly with Velvet and Curtain. Finally, Gert Vriend, director of the CMBI at the Centre for Molecular Life Sciences, Nijmegen, the Netherlands, closed this first part of the symposium with a talk on "*HOPE, a mutational analysis 'machine' for medics*"; HOPE is an easy-to-use webserver workflow, including a diverse set of protein analysis tools and databases for analysing the structural effects of mutations.

To set the scene for the workshop, the programme continued with three further short presentations. Gert Vriend gave a hard-hitting 'perspectives' talk. He examined EMBnet's origins and its current place in the global bioinformatics landscape, reflected on its strengths and weaknesses, and provided a vision of its future opportunities. Thinking about the future, Erik Bongcam-Rudloff, Department of Animal Breeding and Genetics, Swedish University of Agricultural Sciences, described the achievement of SeqAhead, a new COST Action initiative involving a large number of EMBnet Nodes, which, over the next few years, aims to tackle many of the complex informatics issues generated by the ongoing deluge of next-generation sequencing data. Finally, Fran Lewitter, Director of Bioinformatics and Research Computing at Whitehead Institute and Education Committee Chair of the International Society for Computational Biology (ISCB), presented the Society's work in the realms of bioinformatics education and training, and discussed the newly announced alliance with EMBnet.

During the broad-ranging discussions that followed, Erik encouraged Nodes who have an interest in active participation to sign up to the SeqAhead COST Action; Gert pledged his interest in working with an EMBnet-wide/world-wide bioinformatics education activity; and Fran, recapitulating the readiness of the ISCB to take the first steps towards future collaborative bioinformatics education and training initiatives, invited members of EMBnet to participate in a survey on



Figure 1. Collage of events at the 2011 AGM. Left-hand column: invited speakers Fran Lewitter, Gert Vriend and José Pereira-Leal deliver their presentations at the mini-symposium; right-hand column: proceedings of the business meeting; centre column: a hard-hitting perspectives talk from Gert and a relaxing conference dinner afterwards.

bioinformatics curricula. The future looks bright, but much work remains to be done to take such education/training initiatives and this COST Action forward.

Working Group Meetings

Following the symposium, participants got together in working groups to discuss the content and graphics for the new websites being prepared for EMBnet and for *EMBnet.journal*; participants also discussed the status of EMBnet's current e-learning provision and of its Quick Guide portfolio. To assist the work of the groups, tutorials were run by Lubos Klucar and César Bonavides-Martínez on the Open Journal System (OJS) and on the Drupal Content Management System, respectively.

The challenge for the OJS, website-design and e-learning working groups was to analyse the state-of-the-art and to explore possible future improvements within each of these areas in order to allow EMBnet to maintain a relevant

and active role in the global bioinformatics community. The OJS working group pointed out the importance of implementing an improved, informative and attractive journal home page. The website-design group, comprising members of the TM PC and P&PR PC, elaborated a new website graphical model, based both on the recommendations and preferences expressed by the website task-force and on comments from those EMBnet members who participated in the meeting. The result of the e-learning working group discussions was a consensus to remove links to the current e-learning portal, and instead to develop a new strategy and a new website in collaboration with the CMBI, the ISCB and, hopefully, the Bioinformatics Training Network in future. The creation of new Quick Guides was also discussed: proposals were made to update some of the older, more popular Guides and to develop several new ones.

Executive Board and Project Committee (PC) Chair Meetings

In parallel with the working group meetings, the Executive Board and PC Chairs held several meetings to discuss proposed new structures for EMBnet's membership and governance. Against a backdrop of flux in the global bioinformatics environment, and spurred on by new European infrastructural initiatives, the time was ripe to consider in what ways EMBnet might need to change in order to remain a relevant, useful and viable bioinformatics organisation, one that could respond in an efficient and agile manner to challenges of the future.

Key ideas for the new structure included: i) phasing out the requirement of member Nodes to obtain government mandates – where Nodes have national status, EMBnet would continue to recognise this, but a mandate to provide national services would no longer be a condition of membership; ii) allowing individuals to become members; and iii) inviting Honorary Members. Taken together, such changes would reduce the barriers to membership, allowing multiple Nodes and individual members per country, each with interests in, or specialising in, the provision of bio-databases, bioinformatics tools and/or bioinformatics training. The overall scheme is illustrated in Figure 2.

To reflect the proposed new structure, changes to EMBnet's management were also discussed. The principal innovation was to instantiate a new 'Operational Board', aiming to achieve a tighter coupling between the work of the Executive Board and of its Committees. Membership of the Operational Board would be derived from the Executive Board, the PC Chairs, and discretionarily, the Chairs of any designated Special Interest Groups (e.g., such as SeqAhead).

Hand-in-hand with these proposals was the recognition that new membership benefits and fees would need to be put in place, and that the Statutes and Byelaws would need to be revised to accommodate the new structure. All changes to the Statutes must be ratified by the full EMBnet Board; to expedite this process, revised Statutes will be made available to members for comment once a complete working draft has been developed.

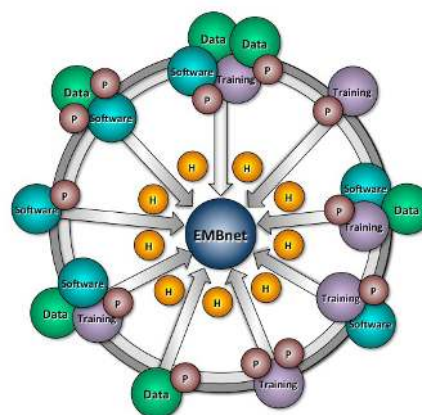


Figure 2. Illustration of the proposed new structure of EMBnet, in which participating countries have multiple Nodes (some, or none, of which may have national status) and individual members (P), with specialisms in data, software and/or training provision. In the new model, Honorary Members (H) may also be invited to join EMBnet.

Conclusion

EMBnet has played, and is poised to continue to play, an important part in the life sciences' evolving data-driven landscape. To remain viable and relevant to today's genomic revolution, however, it must adapt. The 2011 workshop was an important opportunity to discuss how EMBnet could and should change in order to become a more efficient and agile organisation in future. Participants in the workshop worked extremely hard, and we are grateful to them for the energy they invested in shaping tomorrow's EMBnet. We are not there yet, but with the strong collaborative and community spirit that is EMBnet's hallmark, we are in the process of taking significant steps and we expect to get there very soon!