

World-wide Bioinformatics Training Initiatives

Snapshots

Park Inn Hotel, Uppsala, Sweden, 2 June 2012

Meeting host: EMBnet

Meeting participants

EMBnet (Global Bioinformatics Network) – Terri Attwood

ISCB (International Society for Computational Biology) – Reinhard Schneider

APBioNet (Asia-Pacific Bioinformatics Network) – Christian Schönbach

ASBCB (African Society for Bioinformatics & Computational Biology) – Nicky Mulder

SoIBio (IberoAmerican Society for Bioinformatics) – Oswaldo Trelles

ISB (International Society for Biocuration) – Pascale Gaudet

EBI/ELIXIR (European Bioinformatics Institute) – Cath Brooksbank

NBIC (Netherlands Bioinformatics Centre) – Celia van Gelder

SeqAhead (Next-Gen Sequencing Data Analysis Network) – Erik Bongcam-Rudloff

BTN (Bioinformatics Training Network) – Celia van Gelder

Context

Dispersed across the globe are many related organisations that share overlapping activities, particularly in the area of bioinformatics education and training. The ‘*Snapshots*’ meeting arose from a realisation that there might be tangible benefits to these different world-wide training initiatives from sharing experiences, expertise and resources – ultimately, to make their work more joined up, more cost-effective and more visible. It seemed obvious that one way of stimulating such mutual engagement might be through the creation of an alliance – more specifically, via an umbrella organisation, offering centralised services and support for bioinformatics educators, trainers (and trainees), allowing them to work together more effectively towards common solutions.

For practical purposes, the working name for the proposed international alliance of *Bioinformatics, Biotechnology, Biocuration and Computational Biology* networks and societies was the *B³CB*. The reasoning behind the proposal was that such a strategic organisation would be uniquely placed to gain an overview of bioinformatics education and training activities, developments and needs across the globe; more importantly, it would be ideally placed to begin to *address* those needs in a concerted way. To this end, it was envisaged that a key target would be to establish a community-centred, politically-neutral resource, or portal, to facilitate the sharing of: course materials and pedagogical tools; relevant publications and best-practice documents; information about training events, venues and trainers; and so on. Given inevitable institutional ownership issues, inter-institutional competition and internal funding vulnerability, it seemed likely that vesting in a single organisation the responsibility for creating and hosting such a resource was likely to be fraught with difficulties. However, uniting the relevant national and international organisations, networks and societies could allow the creation of a independent entity that was much more focused, much more robust to the volatility of institutional investment strategies, and hence better able to deliver on its aspirations for the benefit of its diverse communities.

With this in mind, the key question was how, practically, might the many related organisations that invest time and money in supporting bioinformatics education and training activities join forces so as to maximise their collective return on investment, build long-term sustainability and gain recognition for their training efforts?

The inaugural B³CB meeting

To gauge interest in the concept of establishing a strategic organisation, and to consider some of the practical possibilities, a meeting was held with invited representatives from a small sample of relevant networks, societies and organisations (as above).

To kick-start the meeting, each representative introduced his/her organisation, highlighting its goals, activities, challenges and needs in relation to bioinformatics education and training. Several clear overlaps emerged from the presentations; the subsequent discussions therefore focused specifically on the following questions:

1. Is there a need for a B³CB-like umbrella organisation? Should it meet again – if so, where, and what other societies/networks/*etc.* should be represented? Should the organisation have a better name – if so, what should it be?
2. What should be the over-arching mission of the organisation – specifically, what should be the principal goals for a truly global bioinformatics training network?
3. How could this organisation work in practice – what would it need to make it work?

Joining the discussions were Gert Vriend (Center for Molecular and Biomolecular Informatics (CMBI)), Laurent Falquet (SIB, Vital-IT HPC Center), Kimmo Mattila (CSC, IT Center for Science) and Jingchu Luo (Peking University (PKU)).

Outcomes

1. Need for an umbrella organisation

There was general consensus that the idea of a global organisation for bioinformatics education and training was a natural evolution of the BTN, expanding its membership with Ibero-American, African and Asia-Pacific representatives. Hence, it was agreed that there would be value in creating, and there was a need for, a B³CB-like strategy group, and that another meeting should be convened. Possible events with which to co-locate the meeting were discussed. The timescales for associating with some of the more obvious events were felt to be too short. However, the next scheduled meeting of the BTN is to be hosted by NBIC, in the Netherlands, in November 2012; it was therefore agreed that it would be both practical and appropriate to arrange the next 'B³CB' meeting in conjunction with that.

Several other organisations and initiatives were mentioned that could augment the organisation's membership: *e.g.*, SIB, EMBL, ICGEB, Gulbenkian, HUGO, FEPS, FEBS, AAAS, SEB, CoB, F1000, SciVee, ToGoTV International. It was agreed that some of these should be invited to the next meeting. There was also agreement that we should try to find a better name. A few options were discussed: GLObal BioInformatics Training (GloBixT or GloBIT), and GLObal Bioinformatics INitiative for Education and Training (GloBINET) were some of the possibilities. Many of the names were already in use, but www.globinet.org is still available. It was agreed that pinning down a new name was a priority, but that we should devote a little more time to thinking about it – the name is important and shouldn't be rushed, because once it's chosen, we're stuck with it!

2. Mission of the umbrella organisation

The main goals of the organisation were considered to be to:

- 1) Provide a global, sustainable support structure for bioinformatics trainers and trainees (including materials and networking, facilities to help train the trainers, and offering learning pathways for different types of learner);
- 2) Facilitate capacity development in bioinformatics in all countries (human resources and infrastructure capacity for training);
- 3) Develop standards and guidelines for bioinformatics education and training;
- 4) Act as a hub for fund gathering;

- 5) Reach out to, amongst others, teachers at high schools, to bridge the gap to the next generation of bioinformaticians.

The ethos of the organisation should be to embrace:

- i) inclusivity (welcome *all* relevant organisations, networks, societies);
- ii) sharing (expertise, best practice, materials, tools, compute resources);
- iii) openness (use Creative Commons Licence);
- iv) imagination (welcome innovation – *e.g.*, IKEA-style course-component kits).

3. Making it work in practice

It was recognised that making this work in practice would require commitment and funding (*e.g.*, via UNESCO, the EU, other foundations (Bill Gates, Wallenberg, *etc.*)). It was agreed that an orchestrating governing body (and user group) was required, with a formalised manifesto, which would need to be embodied in a neutral foundation (to be registered in the Netherlands). Ideally, with seed-corn investment from some (or all of) the participating members, a dedicated (part-time) assistant would need to be engaged to help drive the initiative, maintain momentum, and help with strategic planning and scheduling of user-group meetings.

Actions

1. Notes from the meeting to be synthesised and circulated within 2 weeks - TA
2. A Memorandum of Understanding to be drawn up within 3 weeks – All
3. A new name to be agreed within 4 weeks – All
4. A neutral place-holder website to be set up within 4 weeks – TA
5. A Foundation to be established at the end of 4 weeks – GV
6. Draft an open letter (to announce the Foundation and call for participation) within 6 weeks – TA
7. A meeting to be convened in November 2012 alongside the BTN annual meeting – CvG
8. Agree list of other organisations to invite to November meeting within 6 weeks - All

Agreed by:

Terri Attwood, **Chair EMBnet**

Reinhard Schneider, **Treasurer ISCB**

Christian Schönbach, **Vice President (Conferences) APBioNet**

Nicky Mulder, **President ASBCB**

Oswaldo Trelles, **Education & Training Committee SoIBio**

Pascale Gaudet, **President ISB**

Cath Brooksbank, **Head of Outreach & Training EBI**

Celia van Gelder, **Project Leader Education NBIC**

Erik Bongcam-Rudloff, **Chair SeqAhead**

Celia van Gelder, **Secretary BTN**

Gert Vriend, **Department Head CMBI**

Laurent Falquet, **SIB Vital-IT HPC Center**

Jingchu Luo, **PKU**

Kimmo Mattila, **CSC**