The Global Organisation for Bioinformatics Learning, Education & Training (GOBLET)

GOBLET Consortium

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Dispersed across the globe are many organisations that conduct bioinformatics education and training activities as part of their core business. The value of these different educational initiatives within their particular contexts is clear. Nevertheless, we felt that tangible benefits - in terms of efficiency, cost-effectiveness, visibility, etc. - could accrue were such organisations to more openly share their experiences, expertise and resources. Under the auspices of the 24th Annual General Meeting of EMBnet (the Global Bioinformatics Network), leaders and representatives of a variety of international societies, networks and institutes therefore met in Uppsala, Sweden, on 2 June 2012, to discuss how such benefits might be realised in practice.

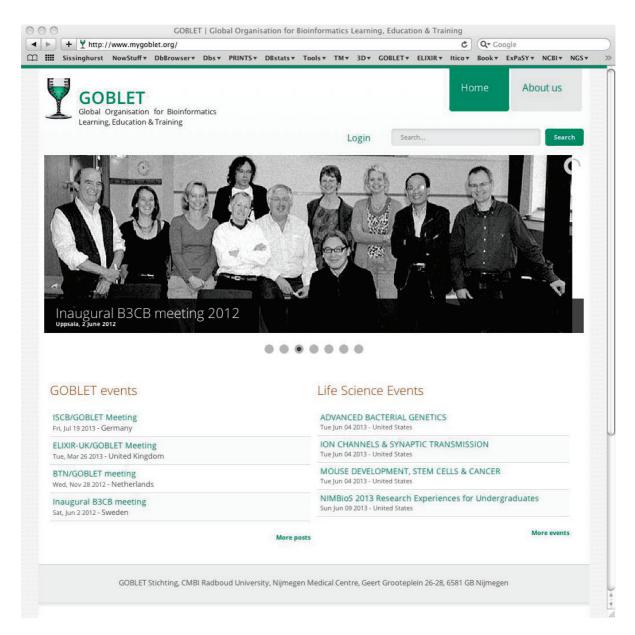
Invited organisations were: the International Society for Computational Biology (ISCB), Asia-Pacific **Bioinformatics Network** (APBioNet), the African Society for Bioinformatics and Computational Biology (ASBCB), IberoAmerican Society for Bioinformatics (SolBio), the International Society for Biocuration (ISB), the European Bioinformatics Institute (EBI), the Netherlands Bioinformatics Centre (NBIC), the Next-Generation Sequencing Data Analysis Network (SegAhead) and the Bioinformatics Training Network (BTN). The rationale for the meeting was that a strategic group like this would be uniquely placed not only to gain an overview of bioinformatics training activities, developments and needs across the globe, but also to begin to address those needs in a concerted way.

To kick-start the meeting, each representative introduced his/her organisation, highlighting its goals and activities in relation to bioinformatics education and training. All were encouraged not only to consider the challenges they face and the needs of the communities they serve, but also to articulate their dreams and visions for the future. From the presentations, several overlaps emerged. In particular, there was a general desire both to harmonise world-wide initiatives

in bioinformatics learning, education and training, and to capitalise on increased collaboration across national and international boundaries. The participants agreed that bioinformatics training continues to be critical if we are to fully reap the benefits of the computational tools and resources that underpin the life sciences; moreover, that the need for such training has become increasingly relevant and urgent in light of the emerging challenges of next- and third-generation-sequencing data generation, storage and maintenance.

Overall, there was general consensus that, to help coordinate world-wide bioinformatics training activities, it would be useful to create an umbrella organisation that would allow Bioinformatics, Biotechnology, Biocuration and Computational Biology (B3CB) societies and networks to share, not duplicate, effort; to share, not duplicate, cost; to work together more powerfully towards common solutions and a sustainable future. This 'Global Organisation for Bioinformatics Learning, Education and Training' (GOBLET) was seen as a natural evolution of the BTN (Schneider et al., 2012), providing a more formal, independent structure and allowing the network to expand more effectively.

It was envisaged that GOBLET would act as a forum for cooperation and sharing. In this role, it would, amongst other things, organise international events and acquire funds to stimulate and support relevant activities. To maximise the synergy and value derivable from investments made in local initiatives around the world, GOBLET would also offer centralised services and support for bioinformatics educators, trainers (and trainees) by providing a joint, community-focused, Webbased portal for training information, materials, tools, documents, and so on, open to international communities. 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 networks, societies and organisations could allow the creation of an 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.



To this end, the participants agreed to estab- 5. reach out to, amongst others, teachers at high lish GOBLET as a legally registered Foundation, with a mission to:

- 1. provide a global, sustainable support structure for bioinformatics educators/ trainers and students/trainees;
- 2. facilitate capacity development in bioinformatics in all countries;
- 3. develop standards and guidelines for bioinformatics education and training;
- 4. act as a hub for fund gathering;

- schools, to bridge the gap to the next generation of bioinformaticians;
- 6. foster the international community of B3CB trai-ners;
- 7. and with an ethos that embraces:
- 8. inclusivity (welcoming all relevant organisations, networks, societies),
- 9. sharing (expertise, best practice, materials, tools, compute resources),
- 10. openness (using Creative Commons Licences),
- 11. innovation (welcoming imaginative ideas and approaches), and

12. *tolerance* (transcending national, political, cultural and social boundaries).

These discussions were observed by representatives from the Swiss Institute of Bioinformatics, the CSC IT Center for Science (Espoo, Finland), and Peking University (Beijing, China).

Following the meeting, a Memorandum of Understanding (MoU) was drawn up; having acguired its fifth signature, this came into force on 6 July 2012. All organisations invited to the Uppsala 'B3CB' meeting subsequently signed the MoU, indicating their commitment to formally establishing the GOBLET Foundation. The statutes that will form the legal basis of the Foundation, and its Governing Board, will be established during the coming months. The Board will conduct the daily business of GOBLET and will work to garner wider membership. Importantly, as part of its mandate, it will also strive to ensure that the Foundation develops as an open, global bioinformatics learning/education environment that benefits all contributors and helps to enhance the broader bioinformatics skill-level in the life sciences. To this end, GOBLET will also seek to establish synergistic relationships with its end-users and beneficiaries (e.g., by maintaining active dialogues with students and student bodies, for whom education and training are top priorities).

Eleven new partners have since joined this initiative and have signed the MoU: the Swiss Institute of Bioinformatics (SIB); the Canadian Bioinformatics Workshops (bioinformatics.ca); the Instituto Gulbenkian de Ciência (IGC); the Society for Experimental Biology (SEB); the Australian Bioinformatics Network (ABN); the Centre for Proteomic and Genomic Research (CPGR); The Genome Analysis Centre (TGAC); The Sainsbury Laboratory (TSL); Itico; the SLU Global Bioinformatics Centre (SGBC) and the Italian Bioinformatics Society (BITS)¹. With seed-corn investment from these and future members, it is ultimately hoped to engage a dedicated (part-time) assistant, to orchestrate GOBLET's work, maintain momentum, and assist with strategic planning and scheduling of meetings.

To help drive the initiative forward, a GOBLET kick-off meeting, co-organised by the BTN,

was hosted by NBIC in the Netherlands, on 28 November 2012. The MoU and documentation relating to the B3CB and GOBLET meetings are available from the website (www.mygoblet.org). A joint meeting with ELIXIR-UK was later hosted by TGAC in Norwich, UK, on 25-26 March 2013 (www.mygoblet.org/elixiruk goblet meeting), to explore how GOBLET and ELIXIR could begin to share training experiences, collaborative ideas and best practice across the fields of bioinformatics, computational biology and computing. The next GOBLET meeting will be hosted by the ISCB and is scheduled to take place on 19 July 2013, alongside the programmed events of ISMB2013, in Berlin. We encourage related societies, networks and organisations to participate in this exciting new venture, and welcome expressions of interest via the website's contact form.

References

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¹ Since submitting this article for publication, five additional organisations or groups have signed the MoU: the IT Center for Science (CSC); Edinburgh Genomics (EdGe); the Nowgen Centre of Excellence in public engagement, education and professional training in biomedicine; Computational Genomics Analysis and Training (CGAT), and BioSharing.

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