



GOBLET

4th AGM

Cape Town, 18-20 November, 2015

Executive report



- **Terri**
 - review of actions & accomplishments since last AGM

This time last year...



GOBLET - 2014 Annual General Meeting November 14-16, 2014



GOBLET
Global Organisation
Learning, Education &...

About us

Join us!

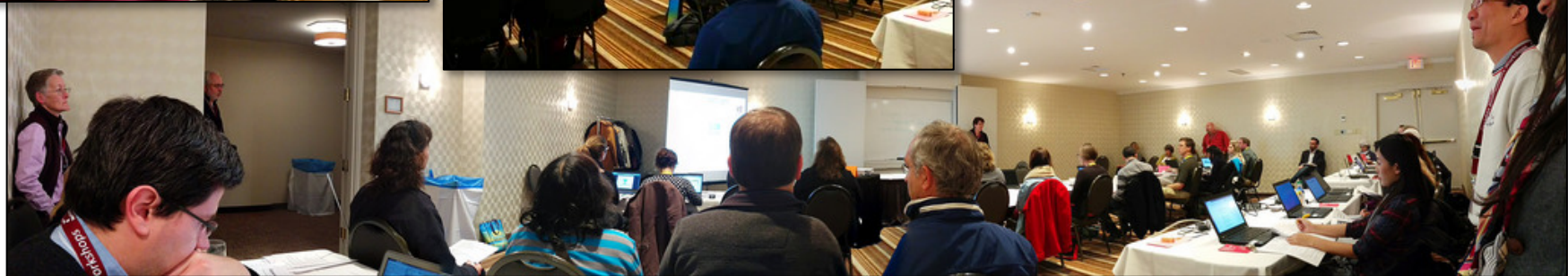
Search



Nov. 15, 2014



Publications



Actions



- **Michelle:** place linkout to GOBLET on ISCB Education pages
- **Terri:** write to Niklas by March '15 seeking ELIXIR membership in GOBLET X
- **ELIXIR members:** repeatedly urge ELIXIR membership in GOBLET
- **Allegra:** upload presentation on GOBLET to portal
- **Manny:** provide Twitter access to Francis & Terri
- **Javier:** follow-up with SolBio membership ✓
- **Erik:** compile welcome package for Fran to give to new members X
- **Fran:** post on GOBLET a list of mailing lists & their use
- **Cath:** look into list of BTN contributors to see if legal (privacy issues) to share list with GOBLET
- **Fran:** introduce Celia to David Searls
- **Fran:** invite David Searls to be an individual member ✓
- **Celia:** help Marie-Claude set up high-school teacher survey on website ✓

Actions



- **Cath:** ask Lonnie if curriculum implementation grant can be shared
- **Erik:** update new logo to add back the DNA helix aspects ✓
- **Erik:** confirm whether GOBLET has full rights over this logo ✓
- **Rafael:** share SASI topic ontology with GOBLET ✓
- **Manny:** add 'Contributor' category to list of Drupal requirements ✓
- **Rafael:** add 'Contributor' category & privileges to website ✓
- **Michelle:** generate process for hiring, hosting & reporting of interns ✓
- **Manny, Nicky:** list the reporting structure, salary, benefits, invoicing schedule, h/w & seating requirements, job description, skill-set & task-list prior to hiring the tech & admin interns ✓
- **Nicky:** plan dates & schedule for the 2015 AGM ✓
- **Exec:** determine pricing structure so members from 3rd-world & middle-income countries can join GOBLET

Actions



- **Exec:** determine a process whereby other training programs can seek GOBLET endorsement
- **All:** push out information about GOBLET to contacts & add GOBLET logo to home websites
- **Patricia, Cath, Javier:** to prepare AKES session for ISMB2015 on *Best Practices & Tips for Training in Bioinformatics* ✓
- **Patricia:** write grant to support GOBLET Train-the-Trainer events & new trainer sponsorship to attend such events
- **Nicky, intern, all:** organise a GOBLET Train-the-Trainer event associated with the 2015 AGM ✓
- **All:** complete 1st draft of the *State of the Field in Bioinformatics Training Needs* by December 22, 2014 in Google Docs ✓
- **Javier:** build 'Bioinformatics Training' survey in website (based on versions already used), to allow launch of surveys next year in certain regions (e.g., Latin America) ✓



EMBnet.digest

November 2014

In this digest

- News
- Upcoming events
- Job opportunities
- InFocus: CBIB 2015 Activities

Job opportunities

- Postdoc Fellow at SIB: 1-year full-time to predict pathogenicity of genetic variation in human Na⁺ channels, as part of the CALPHO group of the SIB & Application: Geneva (CH). **Deadline for application:** 15th December 2014.
- Postdoc/RE at Max-Planck Institute for Biophysical Chemistry (3 years) in "Statistical & machine learning methods & software to address questions in biology & biomedicine". [More Information here.](#)

News

- The 3rd GOBLET AGM was held in Toronto (CA), & included a successful Train the High-School Teacher Outreach Workshop.
- AIBio has now closed its final reporting to the EC – thanks to all members of EMBnet who were active participants in the project. An overview of AIBio's achievements will be the subject of the next InFocus.

Upcoming events

- 5th Annual PhD Symposium in Computational Biology & Innovation: 4-5 December 2014, University College Dublin (IE). [Registration & more info.](#)
- SeqAhead Workshops: 8-9 Dec Bioinformatics, 8-9 Dec Montpellier (FR). [More info.](#)
- GTPB Introductory BI course (IB14S): 9-12 Dec Instituto Gulbenkian de Ciência (PT). [More information.](#)
- Application deadline: ICDM 2014, Biological Data Mining in Healthcare, 14 Dec (CN). [More information.](#)
- SeqAhead Workshops for Massive

EMBnet.journal

EMBnet.digest

InFocus May 2015

GOBLET: Major Achievements from 2012 to 2015

by Teresa K. Attwood

Under the auspices of its 24th AGM, held in Vila (SE) in June 2012, EMBnet invited representatives of nine bioinformatics, bioinformatics, computational biology societies and networks to a workshop to discuss global bioinformatics training initiatives.

With membership having grown more than threefold, GOBLET is going from strength to strength.

Notable highlights include:

- Three publications (in *Bioinformatics*, *EMBnet Journal* & *PLoS CB*),
- Development of a **joint training strategy** with ELIXIR,
- Holding education & training workshops in Manchester, Toronto, Cape Town, South Africa, and in Cape Town, South Africa, and is open to the community.

Accomplishments

- GOBLET in the news
 - EMBnet.digest, Nov 2014
 - SEBULLETIN, Fall 2014
 - ELIXIR eNews, April 2015
 - EMBnet.digest, May 2015
 - ISCB News, July 2015

Minding the bioinformatics skills gap

Bioinformatics – the science of collecting and analysing complex biological data – can still be an intimidating subject for many researchers. This term encompasses essential skills that critical biologists should be fluent in and is being regularly used in the SEB 2014 meeting in Manchester. An entire session to this field at the SEB 2014 meeting in Manchester.

Distinct from a bioinformatics skills workshop, the programme had an 'information gathering' theme. The morning began with an 'Angels Demos, Professional Training Developer at Hovinger', presenting the results of two recent surveys that investigated the level of confidence and the needs of researchers in the bioinformatics skills. These had been undertaken by the SEB and GOBLET (the Global Organisation for Bioinformatics Learning, Education and Training), together collecting 700 responses, including those from professors, PhD students and technical staff. Surprisingly, when asked 'when skills do you require training in?', the overwhelming need was for data interpretation and analysis skills, rather than training in command-line software or programming. This suggests that basic techniques may not be taught rigorously enough in degree programmes. In support of this, the respondents stated that most of their bioinformatics training had been self-taught or learned from colleagues, leading to calls to 'fix the undergraduate curriculum'. And yet, during the discussion, the assembled delegates agreed that simply forcing students to study the subject is unlikely to foster competence and enthusiasm. Rather, universities should focus on giving an introduction into why bioinformatics skills are important and promote opportunities for further training.

Another finding from the survey was that, whilst many researchers prefer to learn bioinformatics skills using online training or workshops, they struggle to find choices between the various opportunities. To address this, the GOBLET initiative launched in November 2013 provides an online Training Portal that helps to guide users to courses that suit their specific requirements. During the session, Terri Attwood, Professor of Bioinformatics at the University of Manchester, described the portal's user-friendly interface and how it can be used to explore and individualise an open survey of evolving projects, and individualise and rate by users in a continuously evolving project. Rather than acting as users' 'hub of experts', Terri stressed that this facility was designed to make bioinformatics available to all.

What GOBLET does

- Hovinger, part of the Manchester Biomolecular Centre, is a centre of excellence for post-graduate education and professional training in bioinformatics.
- For more information about GOBLET in the future "GOBLET awarded a contract to deliver "GOBLET awarded a contract to deliver technical & administrative training" in the SEB bulletin and bioinformatics" in the SEB bulletin

Informed: ELIXIR eNewsletter

Dear reader,

Welcome to the spring 2015 edition of *Informed*, the ELIXIR eNewsletter.

ELIXIR's mission is to build a sustainable European infrastructure for biological information, supporting life science research and its translation to medicine and the environment, the bio-industries and news and updates on developments in reading.

Dr Niklas Blomberg
ELIXIR Director

ELIXIR and GOBLET agree

GOBLET (Global Organisation for Bioinformatics Learning, Education and Training) and ELIXIR have formed a Joint initiative will collaborate on training by the Training Coordinator's Group collaboration, including:

- ELIXIR's emerging TeSS portal;
- Collaboration on train-the-trainer events planned for 2016;
- Joint exploration of training opportunities;
- Sharing of best practice on training.

Meeting the Global Thirst for Bioinformatics Training

Written for the GOBLET Executive Board on behalf of the GOBLET Consortium – Terri Attwood, Vicky Schneider, Michelle Brazas and Fran Lewitter

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Written by the GOBLET Executive Board on behalf of the GOBLET Consortium – Terri Attwood, Vicky Schneider, Michelle Brazas and Fran Lewitter

The demand for bioinformatics training (from students, junior faculty, seasoned academics, even high-school teachers) increases globally each year. To meet this growing demand, the Global Organisation for Bioinformatics Learning, Education & Training (GOBLET) has engaged in numerous training programs and initiatives. Presented here is an introduction to GOBLET, a summary of some recent accomplishments and a general call for participation in our efforts.

GOBLET was established in 2012. It is a subscription-based, umbrella organisation for a spectrum of societies, networks, institutions, groups and individuals. ISCB is one of the founding members of GOBLET, The Foundation.

How to participate?
Currently, 40+ organisations and individual members have joined GOBLET and supported the Foundation's work. Anyone may contribute to the portal by depositing training materials; however, full benefits accrue on becoming a member. Individuals, groups and organisations can join – to find out more, visit www.mgo.org and navigate to our membership pages. Once a member, we encourage you to join one of our Committees in order to more actively participate in the Foundation's work, and to help shape and steer its future direction.

Lessons Learned & Impacts
GOBLET is a grass-roots organisation, created by the community for the community. Along the way, we have gained valuable experience not just from organising and presenting different types of training for different levels of audience, but also from working with trainers from other organisations; this, in turn, has shaped our

ongoing outreach efforts, moving forward. Some of the take-home messages from this collective effort include the following:

- Community: Participation in a network of bioinformatics trainers and educators is invaluable.
- Open Science: Sharing of bioinformatics training materials, datasets, scripts and best practices helps to improve training globally.
- Access: One of the biggest hurdles in bioinformatics training is the availability of trainers. GOBLET is working to train more trainers at all levels, from high school post-graduate to seasoned faculty.
- Collective effort: Aligning training efforts with like-minded organisations, such as ELIXIR, increases our collective output and reduces redundancy.

2014-2015 GOBLET Accomplishments

- In the past year, GOBLET has achieved a number of notable successes. For example, the Foundation has:
 - Published 3 papers.¹
 - Published a joint training strategy with ELIXIR.²
 - Launched an open survey of training needs.
 - Held training workshops in Boston³, Manchester⁴, Toronto⁵.
 - Worked with ISCB to launch the Computational Biology Education Community of Special Interest (CoBE COSI).⁶
 - Won funds from the Canadian Institute for Health Research to support the 2014 Annual General Meeting (AGM).⁷
 - Held technical & administrative training.
 - Started planning the November 2015 AGM in Cape Town.

Get to know us
Many members of the Operational Board and general membership will be attending SIB/ECCB 2015 in Dublin. Please visit our booth in the Exhibitor's area.

At SIB/ECCB 2015, we are involved in organizing a Workshop on Education in Bioinformatics that will be held on Sunday July 12 from 10:10 a.m. to 12:40 p.m., and continue from 2:00 p.m. to 4:30 p.m. The title of the section is "Unlocking the super teacher inside you - Becoming competent in delivering bioinformatics training". This session is a joint effort of the CoBE COSI, the ISCB Education Committee and GOBLET. Please join us for this session.

The GOBLET Consortium will be presenting a poster during Sunday's education poster session. Please stop by our poster to meet us.

Finally, our AGM in November 2015 will be in Cape Town, South Africa, and is open to the community. Please check the GOBLET home page over the next couple of months to see details of the meeting as our planning continues.

We hope to see you at one of the venues mentioned above. We'd love to have you involved in our efforts. There is still a lot to do to bring bioinformatics skills to the global community.

References:

1. Attwood TK et al. (2015) GOBLET: The Global Organisation for Bioinformatics Learning, Education & Training. *PLoS CB* 11(4), e1004143.
2. GOBLET Consortium (2014) GOBLET: achievements & goals a year on. *EMBnet Journal*, 20, 751.
3. Corpe M et al. (2015) The GOBLET training portal. *Bioinformatics*, 31(11), 140-2.
4. <https://www.eliixir.eu/wordpress/news/eliixir-and-goblet-joint-training-strategy>
5. <http://www.iscb.org/workshop-high-school-teachers-ismb2014>
6. <http://www.mgo.org/sites/default/files/goblet-events/SEBGOBLETWorkshopPoster2014.pdf>
7. http://www.mgo.org/training_portal/materials/ismb-2014-understanding-genetic-disease-thanks-bioinformatics
8. <http://www.iscb.org/wiki/CoBEHome>

Accomplishments



- **Papers**

Attwood, T.K., Bongcam-Rudloff, E., Brazas, M.D., Corpas, M., Gaudet, P., Lewitter, F., Mulder, N., Palagi, P.M., Schneider, M.V., van Gelder, C.W.G. & the GOBLET Consortium (2014)

The GOBLET Consortium

Attwood, T.K., Banag, C., Blackford, S., Blatter, M.C., Bongcam-Rudloff, E., Brazas, M.D., Brooksbank, C., Budd, A., Charleston, M., Christoffels, A., Conesa, A., Corpas, M., Crowe, M., Davies, A., De Las Rivas, J., Doyle, M., Edwards, R., Facchiano, A., Fernandes, P., Gaeta, B., Gaudet, P., Heger, A., Herringa, J., Hughes, D., Jimenez, R.C., Kille, P., Korpelainen, E., Kumuthini, J., Lewitter, F., MacLean, D., Martinez, S.A.R., McGrath, A., Michalopoulos, I., Mulder, N., Ouellette, B.F., Palagi, P.M., Pearson, W.R., Qi, W., Romano, P., Rother, K., Sansone, S-A., Schneider, M.V., Schönbach, C., Tastan-Bishop, O., Taylor, J., Trelles, O., Twells, R., van Gelder, C.W.G., Via, A., Vriend, G., Warnow, T., Watson, M., Welch, L., Zanzoni, A.

GOBLET: the Global Organisation for Bioinformatics Learning, Education & Training

PLoS CB, April 9, 2015 DOI: 10.1371/journal.pcbi.1004143

Attwood, T.K., Brazas, M., Brooksbank, C., Jimenez, R.C., Blackford, S., Palagi, P.M., De Las Rivas, J., Ouellette, B.F.F. Kumuthini, J., Korpelainen, E., Lewitter, F., van Gelder, C.W.G., Mulder, N., Corpas, M., Schneider, M.V., Tan, T.W., Clements, D., Davies, A...

A global perspective on bioinformatics training needs

To be submitted.

The screenshot shows the PLOS Computational Biology article page. At the top, there are navigation links for 'Browse', 'Publish', and 'About', along with a search bar. The article title is 'GOBLET: The Global Organisation for Bioinformatics Learning, Education and Training'. Below the title, there are statistics: 32 Saves, 1 Citation, 6,531 Views, and 124 Shares. The authors listed are Teresa K. Attwood, Erik Bongcam-Rudloff, Michelle E. Brazas, Manuel Corpas, Pascale Gaudet, Fran Lewitter, Nicola Mulder, Patricia M. Palagi, Maria Victoria Schneider, and Celia W. G. van Gelder. The article is published in PLoS Comput Biol 11(5): e1004281. There is a 'Correction' section with a date of 14 May 2015. The abstract discusses the challenges of bioinformatics training in the age of big data. On the right side, there are buttons for 'Download PDF', 'Print', and 'Share', along with a 'CrossMark' icon and a list of 'Related PLOS Articles' and 'Subject Areas'.

Accomplishments



- GOBLET in the blogosphere...


The screenshot shows the Bioinfo-fr.fr website. The header includes the logo 'Bioinfo-fr.fr Geekus biologicus', navigation icons, and social media links. The main content area features a blog post titled 'Former et se former en bioinformatique avec GOBLET !' dated March 11, 2015, by Nolwenn. The post includes a GOBLET logo and a brief description of the organization. The right sidebar contains a search bar, a list of random articles, and a 'Liens' section with links to BioStar, JeBIF, and Les Bioinformatiques.

Bioinfo-fr.fr
Geekus biologicus

L'équipe À Propos Contact

Accueil Astuces Brèves Conférences Découverte Didacticiel Entretien Formations J'ai lu Opinions Suivez l'guide

Brèves :
Former et se former en bioinformatique avec GOBLET !
mer 11 mar 2015 Nolwenn Brèves, Découverte 2

 **GOBLET**
Global Organisation for Bioinformatics Learning, Education & Training
— Logo titre de l'organisation GOBLET
<http://mygoblet.org/>

Dans cet article, je vous présenterai un nouveau site qui peut être intéressant aussi bien pour les étudiants que pour les enseignants, voire également pour les bioinformaticiens déjà en fonction. Ici je ne vous noierai pas sous les lignes de code, mais je vous décrirai ce que le portail GOBLET vous propose en terme d'exercice. Prêts ? À vos claviers !

À propos de GOBLET

GOBLET, the Global Organisation for Bioinformatics Learning, Education and Training, est une fondation dont les mission sont, entre autres, de :

1. fournir un support global de formation à l'intention des étudiants et des formateurs en bioinformatique au travers d'un réseau structuré et stable ;
2. faciliter les capacités de développement en bioinformatique dans tous les pays ;
3. développer des standards et des guides pour la formation en bioinformatique.

Il s'agit donc d'une plateforme sur laquelle étudiants et enseignants peuvent lire ou déposer des liens vers des ressources. Cette plateforme présente donc une alternative intéressante aux MOOCs qui sont en pleine expansion ces derniers temps !

Présentation du site

Dès la page d'accueil vous pouvez voir la liste des cours précédemment enregistrés sur le site. A l'heure où j'écris ces lignes, 90 cours sont disponibles.

Articles au hasard

- Jouez avec vos données : utilisez un ORM
jeu 6 juin 2013
- Un tour d'horizon des bases de données consacrées au métabolisme
mar 5 mar 2013
- L'Encyclopédie ENCODE : coup de génie ou coup de pub ?
ven 7 sept 2012
- Soirée BED & FASTA !
mer 26 mar 2014
- Python, dessine-moi un graphe
jeu 9 juil 2015

Liens

- BioStar
- JeBIF
- Les Bioinformatiques

Accomplishments



- ISMB 2015, July, Dublin
 - education workshop
 - Unlocking the ‘super teacher’ inside you
 - Patricia, Javier, Gabriella, Annette, Dave, Francis...
 - AKES06
 - How to navigate a bioinformatics career path
 - Manuel, CoBE COSI (Fran, Terri), Michelle, Nicky, Cath..
 - education poster
 - subsequently published in F1000Research
 - <http://f1000research.com/posters/4-328>

The screenshot shows a poster on the F1000Research website. The poster title is "Meeting the Global Thirst for Bioinformatics Training" by The GOBLET Consortium. It includes an abstract, an operational board, and a list of enterprises. The poster is categorized as "NOT PEER REVIEWED" and has 39 views and 7 downloads. The website header includes navigation links like HOME, SUBJECTS, CHANNELS, HOW TO PUBLISH, ABOUT, and BLOG. The footer of the poster indicates it was published on 23 JUL 2015 and is open access under a CC BY Creative Commons 4.0 license.



GOBLET

Global Organisation for Bioinformatics Learning, Education & Training



Empowering people, harnessing communities, networking networks



GOBLET

Global Organisation for Bioinformatics Learning, Education & Training

ABOUT US

GOBLET was established in 2012 by a group of international & national societies & networks to offer an umbrella for bioinformatics, biocuration, biocomputing & computational learning, education & training.

BECOME A MEMBER – EXPERIENCE THE ADVANTAGES

- Individual & organisation memberships available

Membership advantages

- Access to a community of bioinformatics, biocuration & computational biology training course organisers
- A collaborative environment in which to support new learning, education & training enterprises
- Access to its international training meetings
- Opportunities to shape its training strategies
- Opportunities to influence its policies & action plans



Publications

1. GOBLET: the Global Organisation for Bioinformatics Learning, Education & Training. *PLoS CB* (2015), 11(4), e1004143.
2. GOBLET: achievements & goals a year on. *EMBnet journal* (2014), 20, e751.
3. The GOBLET training portal. *Bioinformatics* (2015), 31(1), 140-2.

Join us at: mygoblet.org
 Contact us at: info@mygoblet.org
 Follow GOBLET: [@mygoblet](https://twitter.com/mygoblet)



GOBLET

Global Organisation for Bioinformatics Learning, Education & Training

Empowering people, harnessing communities, networking networks

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 Follow GOBLET: [@mygoblet](https://twitter.com/mygoblet)

Membership Benefits

	Individual	Organisational (incl. corporate)
Fee	€15	€250
To attend co-sponsored meetings/events	✓	✓
Local bioinformatics/BICB trainer network opportunities via mailing lists & meetings	✓	✓
Access to join Committees & their Task-forces	✓	✓
Opportunities to lead Task-forces	✓	✓
Monthly copies of newsletter	✓	✓
Discounted publications in <i>EMBnet journal</i>	✓	✓
Access to generate new training activities	✓	✓
To attend co-sponsored meetings/events	✓	✓
Opportunities to seek joint funding	✓	✓
Upload & share training materials	✓	✓
Organise/develop course pages	✓	✓
Publicity for training activities via website	✓	✓
Ability to become a GOBLET sponsored trainer	✓	✓
Right to vote in elections	✓	✓
Right to run for Executive position	✓	✓
Waived fee for organising an AGM	✓	✓
Publicity for organisation via website	✓	✓



GOBLET

Global Organisation for Bioinformatics Learning, Education & Training

ABOUT US

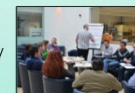
GOBLET was established in 2012 by a group of international & national societies & networks to offer an umbrella for bioinformatics, biocuration, biocomputing & computational biology learning, education & training.

Operational Board



GOBLET STRUCTURE & ACTIVITIES

- Education & Training Committee**
 - Developing & sharing best practice in teaching & learning methods
 - Providing curriculum guidance, recognition, support structures & resources for trainers, including materials, methods & train-the-trainer/mentor programmes
- Outreach & PR Committee**
 - Promoting GOBLET's mission, training resources, activities & events
 - Encouraging social networking interactions & galvanising the community
- Accreditation Committee**
 - Developing accreditation mechanisms for learners & trainers
 - Promoting the overall quality of training programmes



Fund-raising Committee

- Stimulating collaborative projects within GOBLET & the training community
 - Raising funds to sustain GOBLET
- Technical Committee**
- Providing a support infrastructure for trainers & trainees
 - Maintaining an open Training Port: mygoblet.org/training-portal



Join us at: mygoblet.org
 Contact us at: info@mygoblet.org
 Follow GOBLET: [@mygoblet](https://twitter.com/mygoblet)



Accomplishments



- The Computational Biology Education COSI – CoBE
– Fran, Lonnie Welch, Terri

The screenshot shows the iSCB connect website interface for the Computational Biology Education - CoBE community. The header features the iSCB connect logo and navigation links: Main, Communities, Network, Browse, and Participate. A search bar is located on the right. Below the header, the page title is "Computational Biology Education - CoBE" with a "Settings" button. A navigation bar includes "Community Home", "Discussion 1", "Library 4", "Blogs 1", "Events 0", and "Members 7". The main content area contains a paragraph about the life sciences' reliance on computational and mathematical approaches, followed by a paragraph stating the community's goal. Below this, it mentions the community was established in 2014. A "Steering Committee" section lists Fran Lewitter (Chair), Lonnie Welch, and Terri Attwood. A "Getting involved" section lists four ways to participate, including workshops, membership in GOBLET, a curriculum task-force, and a poster track at ISMB/ECCB.

Computational Biology Education - CoBE Settings

Community Home **Discussion 1** **Library 4** **Blogs 1** **Events 0** **Members 7**

The life sciences are increasingly reliant on computational and mathematical approaches for biological data storage, analysis, visualisation and interpretation. But, bioinformatics and computational biology, and the technologies that underpin them, are swift-moving disciplines and it can be difficult to keep pace. The ISCB CoBE COSI focuses on education and training in this fast-moving arena. A major goal of this Community of Special Interest is to foster a collaborative community in which bioscientists can share bioinformatics education and training resources and experiences, and facilitate the development of education programs, courses, curricula, etc., and teaching tools and methods.

The Computational Biology Education (CoBE) COSI was established in 2014.

Steering Committee

- [Fran Lewitter](#), Whitehead (Chair)
- [Lonnie Welch](#), Ohio University
- [Terri Attwood](#), The University of Manchester

Getting involved

1. We regularly organise Workshops on Education in Bioinformatics (WEB) at ISMB and ECCB conferences, offering opportunities and strategies for the provision of bioinformatics training to engaged audiences - contact us with suggestions for future workshops.
2. We are members of the [Global Organisation for Bioinformatics Learning, Education & Training \(GOBLET\)](#), an umbrella organisation that brings together major international and national bioinformatics and computational biology societies and networks, aiming to provide a global, sustainable support and networking infrastructure for bioinformatics educators/trainers and students/trainees. GOBLET's principal meetings are held annually, with interim events throughout the year - [join us](#).
3. We have an active [Curriculum & Competencies task-force](#) - get involved.
4. At ISMB/ECCB in Berlin, we established a poster track dedicated to educational activities - look out for future calls for posters.

Accomplishments



- GOBLET-ELIXIR joint training strategy, April 2016
 - Terri, Celia, Patricia, Eija, Allegra...

GOBLET – ELIXIR Training Strategy

1. Preamble
This document outlines a recommendation for a collaborative training strategy to support complementary activities between GOBLET and ELIXIR.

2. Description of the partners GOBLET and ELIXIR
ELIXIR, a pan-European research infrastructure for biomolecular data, aims to support life-science research across Europe, and its translation into medicine, agriculture, bio-industries and society, through the collection, quality control and archiving of biological data. It plans to achieve its goals partly via a coordinated training strategy (including train-the-trainer, train-the-researcher and train-the-developer programmes, provision of e-learning modules, tools, services and resources to better exploit ELIXIR's core data resources, tools, services and standards. Part of this strategy involves development of a Training e-Support System (TeSS). TeSS will automatically harvest training information from ELIXIR Nodes (and other content providers), and will offer ELIXIR-wide and Node-specific views of training events, resources, etc., for the benefit of ELIXIR communities.

ELIXIR-specific activities

- Developing an ELIXIR-focused training registry – i.e., an aggregating platform to inform users of training news, opportunities and resources across its Nodes (based on iAnn, a mechanism successfully deployed within GOBLET);
- Building and coordinating a European network of bioinformatics and infrastructure trainers;
- Developing and delivering training specifically to empower researchers, developers and trainers to use ELIXIR tools, data resources and services;
- Exploring use of the Moodle learning management system to deliver e-learning modules and materials.

GOBLET's core mission is to provide a global, sustainable support and networking infrastructure for bioinformatics trainers and trainees (Attwood et al., 2015). This includes a training portal (Corpas et al., 2015), allowing trainers to share materials, tools and techniques, guidelines and best-practice documents, and resources to train trainers and teachers. In addition, GOBLET is i) fostering the international community of bioinformatics/computational biology trainers through networking events (esp. in collaboration with ISCB, through joint workshops and tutorials at ISMB/ECCB, and joint development of the Community of Special Interest (COSI) in Computational Biology Education), ii) facilitating bioinformatics capacity development across the globe, particularly through its train-the-trainer and train-the-teacher initiatives, and iii) developing best-practice standards and expertise of its network (encompassing 30 national and international organisations in Europe, Africa, Asia, Australasia, and North and South America). GOBLET is emerging as the professional body for bioinformatics training, exploring the recognition of trainers/courses using **open badges** or similar, and accreditation/endorsement/branding of high-quality courses and materials.

Figure 1. Proposed scheme for building a collaborative training strategy between ELIXIR and GOBLET.
Activities supported by GOBLET's Training Portal, on the one hand, and ELIXIR's TeSS, on the other. GOBLET and ELIXIR bring a number of complementary strengths to the table. We seek to formalise and to build on these strengths as a prlude to formal membership in GOBLET, which we anticipate will have clear advantages to both organisations (to be outlined in a separate document).

References
Attwood TK et al. and the GOBLET Consortium. (2015) GOBLET: the Global Organisation for Bioinformatics Learning, Education and Training. *PLoS Comp. Biol.*, in press.
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Accomplishments



- GOBLET-ELIXIR e-learning workshop, September, Slovenia
– Patricia, Brane, Terri, Celia, Eija, Sarah, Pedro...

The screenshot shows a Google Docs interface. The title bar reads "e-Learning White paper" with a star icon and a folder icon. The user's email address "attwood@bioinf.man.ac.uk" is visible in the top right. The menu bar includes "File", "Edit", "View", "Insert", "Format", "Tools", "Table", "Add-ons", and "Help". The toolbar shows various editing tools, a font size of 75%, "Normal text" style, "Calibri" font, and a size of 18. The document content is as follows:

e-Learning White paper - titled to be defined

1. Abstract

This white paper summarises the flow of information and outcomes generated during the workshop "ELIXIR/GOBLET workshop: defining an e-learning lingua franca" held in Ljubljana, Slovenia, on 15-17 September 2015. This document provides an overview of e-learning approaches and their applications used internationally and within ELIXIR and GOBLET. These approaches are briefly described in order to facilitate the ease of comparison, the understanding of their respective strengths and weaknesses. This exercises was intended to , and to define a common e-learning 'language' to facilitate communication within and between the GOBLET and ELIXIR trainer communities. The outcomes of the workshop will be summarised in a draft white paper, describing the various , and providing recommendations for their use.

2. Introduction

Within ELIXIR and GOBLET, there are many different views and understandings of what e-learning actually is. Examples of so-called 'e-learning' systems include: Massive Open Online Courses (MOOCs), such as those provided by Coursera, Udacity, edX or MIT OpenCourseWare; platforms for uploading and hosting course materials, such as that provided by GOBLET; platforms to harvest and link course materials together, such as in TeSS; and learning management systems (LMS), like Moodle, to name but a few. All of these can and have been brought together under the banner of 'e-learning'; however, they do not necessarily mean the same thing from user, developer or content- provider perspectives. To help the ELIXIR and GOBLET trainer communities work together

Accomplishments



- GOBLET NGS Course, 3-6 November, Brazil
– Michelle & Patricia

The screenshot shows a web browser window displaying the 'Courses | Xmeeting 2015' page. The browser's address bar shows 'x-meeting.com/2015/content/courses'. The website header features the 'X-meeting + BSB 2015' logo, the location 'USP - SÃO PAULO - SP - BRAZIL | NOVEMBER 03 to 06 2015', and the text '11th International Conference of the AB3C + Brazilian Symposium of Bioinformatics'. There are two photographs of the venue, with the caption 'Fotografia Jorge Maruta / USP Imagens'.

X-Meeting Menu

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Courses

Course 01: Genome Browser Workshop
Dr. Robert Kuhn
Cost: R\$ 50,00
Local: Sala 6 d CEC, Bloco B do IME

This workshop is aimed at the biologist who is interested in exploring genomes using the University of California Santa Cruz (UCSC) Genome Browser. It is geared towards those who have little or no experience using the UCSC Genome Browser and for more advanced users who are not familiar with many of the gene-oriented browser features. Using real examples the user is guided through a step-by-step process for analyzing genes in the context of the human genome and a wide variety of genomic data. The user is shown how to use the UCSC Genome Browser for simple and more complex tasks. Tutorials, exercises and/or other informational material on using the UCSC Genome Browser will be provided.

Course 02: Current methodologies in transcriptome analysis
Dr. Boris Guenewig
Cost: R\$ 50,00
Local: Auditório Jacy Monteiro, Bloco B do IME

This workshop is aimed at the biologist or computational biologist who is interested in exploring high throughput transcriptome data. Topics covered will be experimental design, quality control, alignments and quantification (day 1); current annotations, differential expression analysis and batch effect control (day 2); *de novo* assembly, alternative splicing, editing and circRNAs (day 3).

Course 03: Key Aspects of a Successful NGS Course - a GOBLET Initiative
Michelle Brazas (Ontario Institute for Cancer Research, Canada) and Patricia Palagi (SIB Swiss Institute of Bioinformatics, Switzerland)
Cost: R\$ 50,00
Local: Auditório, CCSL do IME.

Overview: Next generation sequencing technologies (NGS) are heavily exploited techniques in modern biology. As such, the demand for NGS-related courses is steadily growing. Whether in a formal academic setting, a core facility or a company environment, NGS data analysts are frequently requested to set up training courses for their communities. Providing excellent training is a challenge that requires good planning and careful thinking. In this short course, you will learn how to plan a good NGS course, how to define the learning objectives of a course, how to select students (in other words define the pre-requirements), how to structure an NGS learning environment, and how to best exploit the unified collection of training materials and data-

Accomplishments



- Grants applied for
 - Wellcome Trust DELTAS – Nicky ✗
 - requested GOBLET post
 - Marie Skłodowska-Curie Innovative Training Networks – Anton Feenstra ✗
 - Viral Learning
 - COST Action – Susanne Hollmann ✓
 - Harmonising standardisation strategies to increase efficiency & competitiveness of European life-science research (CHARME)



particular efforts will be made to utilise and synergise with existing infrastructures (including, but not limited to, the Training e-Support System (TeSS) being developed by ELIXIR, and GOBLET's Training Portal), to avoid costly and unnecessary duplication of effort. WG 5 will be responsible for developing an interactive learning and communication platform for sharing "best practices" and new information on quality management and standardisation between all domains. WG5 will also organise meetings for sharing best research practices relating to the objectives of the Action. Attention will be given to new educational programmes, such as demonstration projects in quality management in participating member countries and for other key stakeholders. The Action participants have expertise on a wide range of state-of-the-art methodologies and technologies; these teaching activities hence provide unique opportunities to disseminate this knowledge to ESRs in Europe, promoting scientific excellence in data management and analysis in the field of systems biology (WG3, 4, 5).

Objectives:

- to identify gaps and bottlenecks in training for quality management in the data generation/data integration/implementation value chain
- to identify and report on the gaps and bottlenecks in the current education and training system
- to create appropriate capacities for a standardisation strategy, and establish training activities to close the knowledge gaps by interdisciplinary training

Expected outcomes (M&D). Workshops and tutorials for ESRs and students (hack-a-thons/SOP writing) (M12, M24, M36, M48).

WG 6 Management

To create an agile executive organ, WG6 will be the Executive Board of the MC, including the coordinators of the five WGs. WG6 will be formed by the Chair and the WG leaders. Together with the MC, WG6 will perform the reporting duties, allowing for monitoring and assessment of the Action and financial reporting. They will decide on potentially eligible participants and reimbursements, in compliance with the Action's specific rules. WG6 will coordinate the interactions and activities of CHARME.

Accomplishments



- Other income
 - EMBnet €25,000
 - ‘life-time’ (10-year) membership
 - ring-fenced ‘donation’ to produce GOBLET-branded materials
 - hire an ‘education assistant’ for 2 years
 - ...

Coming soon...



- GOBLET-ELIXIR joint workshops
 - Gabriella...
 - hackathon for metagenomics training materials, DK, April 2016
- GOBLET presence at ISMB16
 - Fran...
 - Orlando, FL (USA), July 2016
- GOBLET presence at ECCB16
 - Celia...
 - The Hague (NL), September 2016
- GOBLET AGM 2016
 - ???, November 2016
- GOBLET-branded products
 - Terri...

GOBLET's raison d'être



- **Ultimate vision**
 - to provide support for bioinformatics training world-wide
 - to reach out to the next generation of bioinformaticians
 - to produce high-quality GOBLET-branded materials & courses
 - to help drive up the quality of *ad hoc* training courses
 - to become the professional body for bioinformatics training
- **Stepping stones**
 - to disseminate the results of our work effectively
 - to demonstrate the value of working with us
 - to procure funding
 - to expand the GOBLET community (increase membership)
 - to collaborate with like-minded organisations & initiatives
 - to hire an assistant(s)

Conclusion



- Another incredibly busy year
 - we've achieved a lot
 - but there's always more to be do!
- Huge thanks to all who've mucked in!
 - a plea to you all to help build on this foundational work
 - help to spread the word...

Thanks for your dogged attention!
Questions?

