Global Organization for Bioinformatics Learning, Education & Training

Summary of GOBLET AGM 2020

The GOBLET Annual General Meeting (AGM) 2020 was hosted by CSC, Finland from 14 to 16 September. Going fully virtual for the first time worked well, and the AGM gathered over 40 registered participants (GOBLET members and observers) from 25 different countries and six continents. The 2019/2020 GOBLET Executive report was presented by the Chair, Celia van Gelder, followed by seven GOBLET activity reports. GOBLET members and observers collectively gave 14 interesting flash talks, with topics ranging from making training materials FAIR and on-line training challenges, to international training developments in Asia, US, Australia and Africa. Other sessions included Bioschemas and training, an area where ELIXIR and GOBLET are actively collaborating. Finally, the members planned activities for the coming year. The key activities include four workshops, working on high school bioinformatics materials, a series of working sessions on implementing the 10 rules for making training materials FAIR, and co-organising the Education Summit 2021. The slides are available for download and the presentation videos are available as a playlist on the GOBLET YouTube channel.

Following the successful completion of the AGM, GOBLET organised the first of the four planned workshops: "The Mastery Rubric for Bioinformatics (MR-Bi)" (https://ssl.eventilla.com/event/jNJ5y) on 22 September 2020. The workshop gathered trainers around the world to learn how MR-Bi can facilitate the design of training courses. The workshop was taught by Rochelle Tractenberg (USA), Teresa Attwood (UK), and Allegra Via (Italy), and the materials will be made publicly available later in the year.

The next three upcoming GOBLET workshops will focus on bringing bioinformatics to high schools, Train-the-Trainer and scRNAseq data analysis (the latter two are organized in collaboration with ELIXIR).

- *By Eija Korpelainen,*

Chair of GOBLET AGM 2020

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Education Summit 2020 & 2021

The Education Summit collaborative team, led by Nicky Mulder, is continuing its work with regular online meetings. These meetings are focused on progressing forward the plans proposed during the Education Summit 2020 (held in May 2020). An important agenda item on the October 2020 meeting was GOBLET's proposal to co-organise the Education Summit event in 2021, together with CABANA-EBI. This was discussed and it was agreed that an Organising Committee will be formed for the 2021 event. The committee is proposed to comprise: Nicky Mulder (ISCB & H3ABioNet), Sarah Morgan (EBI), Patricia Carvajal (CABANA), Cath Brooksbank (EBI & CABANA), Celia van Gelder (GOBLET & DTL/ELIXIR-NL) and Javier De Las Rivas (GOBLET & SoIBio). The next year summit is suggested to be held in October 2021, since CABANA will be engaged with ISCB-LA-SoIBio-BioNetMX 2021 meeting, which will take place the following month (http://www.soibio.org/en). As for the format, the favoured option is a hybrid model of online & physical meetings, covering different geographical locations, connected online. The working committee is also open to suggestions of topics, agenda items for discussion and activities to be carried out during the upcoming Education Summit 2021. Notable suggestions are: (i) continue with the existing activities, including the Competency Framework; (ii) extend competencies to Data Science in Biomedical area; (iii) further explore lessons learnt from going virtual/online due to COVID pandemic; review the various approaches that have been implemented; (iv) evaluate and improve the effectiveness of the Train-the-Trainer (T-t-T) courses; (v) consider to include a special topic/session on "equality, diversity and inclusion"; (vi) think better how to help more effectively in building infrastructures and organising activities in low and middle income countries (LMICs).

- By Javier De Las Rivas,

Executive Coordinator of LET
GOBLET Executive Board

Member Highlights:
2020 Bioinformatics Community Conference (BCC2020)
Online, July 17-26, 2020

The 2020 Bioinformatics Community Conference (BCC2020) was a joint event bringing together the Bioinformatics Open Source Conference (BOSC) and the Galaxy Community Conference. BCC2020 was converted to an online event, and this has enabled several changes:
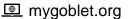
- **BCC2020 was Global**: Events were held twice each day: once in their original Toronto time zone (BCC West), and again 12 hours later in the Eastern hemisphere (BCC East).

- **BCC2020 was Affordable**: Registration rates were slashed to a fraction of their original cost, and included a discount for students and researchers from the developing world.

- **BCC2020 was Accessible**: These two changes made BCC2020 the most accessible BOSC or Galaxy conference in either organization's history.
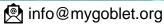
These changes increased attendance from 300+ people in 2018, to 800+ participants in 2020.

The meeting featured keynotes, parallel and joint sessions, accepted and lightning talks, posters and demos, birds of a feather and networking breaks. BCC2020 started with two days of training, with each day offering 5 parallel tracks, with 3 sessions per track, each 2.5 hours long (and the whole thing repeated again 12 hours later). This added up to 60 training sessions and 150 hours of online and live instruction, covering the full spectrum of bioinformatics.

BCC ended with a Collaboration Fest that aimed to expand the open-source bioinformatics contributor community in every area (enhancements, tutorial development, documentation, and testing, among others) that makes communities and projects successful. See this BCC2020 blog post, the F1000 report, Gigi Kenneth's blog post, and this GigaBlog post for meeting writeups.

We hope to see you at BCC2021!

Bioinformatics Critical Guides & Practical Guides

In 2018, GOBLET launched a set of Critical Guides to popular databases and tools as part of a new *Introduction to Bioinformatics* series of training materials. Marking the launch, all were published in the *F1000Research Bioinformatics Education & Training Collection*. The first in the series were:

- A Critical Guide to Unix
- A Critical Guide to BLAST
- A Critical Guide to UniProtKB
- A Critical Guide to the UniProtKB Flat-file Format
- A Critical Guide to InterPro
- A Critical Guide to the PDB

In 2019, these were followed by a seventh *Critical Guide*, and the launch of a set of *Practical Guides* in a new *Bringing Bioinformatics into the Classroom* series – this series aims to introduce school teachers and pupils to the idea of computers as tools to help understand aspects of biology:

- A Critical Guide to the neXtProt knowledgebase: querying using SPARQL
- Using Bioinformatics to Understand Genetic Diseases: A Practical Guide
- Bioinformatics: the Power of Computers in Biology: A Practical Guide
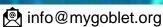
We are happy to announce the publication of a third *Practical Guide* in the *Bringing Bioinformatics into the Classroom* series:

- Bioinformatics: Food Detective – A Practical Guide

This is a comparison to the Power of Computers in Biology Practical Guide, and forms part of the 4273pi project workshops for Higher Biology, Higher Human Biology and Advanced Higher Biology in Scotland.

- *Guest article by Terri Attwood,*
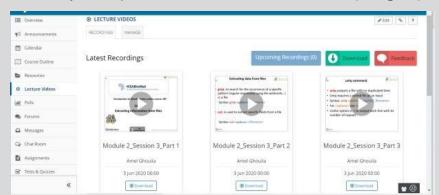
Immediate Past Chair of GOBLET

H3ABioNet takes their Introduction to Bioinformatics Course online in response to COVID-19

H3ABioNet's Introduction to Bioinformatics Course (IBT) is a 3 month long blended-learning course that makes use of a multiple-delivery-model approach to reach over 1,000 participants in more than 16 African countries annually. The success of the model has always been the flexible approach, combining face-to-face learning in local classrooms, distance learning via pre-recorded lectures by module experts and online learning via a course learning management system (LMS), Vula. It is a LMS owned by the University of Cape Town and is based on SAKAI (**Image 1**).
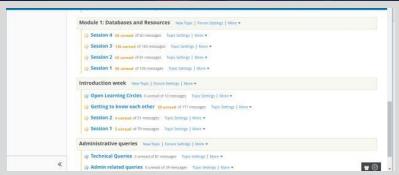

Image 1: Learning management system, Vula, used by H3ABioNet to deliver course content, lecture videos and administer tests and assignments.

One of the biggest assets of the course are the trained local staff and teaching assistants available to participants within their local classrooms as they complete the course content. However, with the onset of the COVID-19 pandemic and subsequent lockdowns across Africa, H3ABioNet quickly needed to adapt their approach to the course by taking it completely online for the first time since its inception. All (>1,000) participants spread across Africa are now taking the course online with classroom staff arranging independent chat groups or hosting online zoom tutorial sessions to continue to provide support. As evidenced by the growing number of forum questions on the LMS (**Image 2**), participants are making active use of the LMS tools and resources, but it is evident they are also really missing the support of their local staff. The course is now onto its second module and is progressing well despite some of these challenges and does illustrate the benefits of designing blended learning distance courses. By having a multiple-delivery-model approach, H3ABioNet still managed to reach over 1,000 participants thus far, this year. The course has another four modules to go and H3ABioNet hopes it will be another successful iteration.

Image 2: Screenshot of the structured forums available on the LMS, Vula.

Although IBT is now offered completely online, as the general rule of thumb for the 2020 iteration (in the attempt to curb the spread of the pandemic and adhere to the global and country specific lockdown rules), we did offer the participants, through our surveys and communication with classroom hosts, a carte blanche to still meet face-to-face if they needed. Given our cognizance of the fact that most of our African classrooms struggle with internet stability, pooling of resources and still coming together while adhering to social distancing rules is, thus, necessary. For example, Wi-Fi and computers are not available at homes of some of our students, but only at their local institutions. As such, a few of our over 40 classrooms have had to organize physical meets once in a while. For instance, the classroom at Nazi Boni University of Bobo Dioulasso in Burkina Faso, which partook in our IBT for the first time this year, offered both online and face-to-face meetings (**Image 3**).

Image 3: Students at Nazi Boni IBT 2020 classroom adhering to social distancing rules

They had a dedicated room for the course but because of the COVID-19 pandemic, the room could only hold a few students at a time. Social distancing guidelines were adhered, with masks worn and hand sanitisers used while in class, ensuring that the students were learning and still flattening the curve.

- *By Verana Ras and Paballo Chauke,*

H3ABioNet

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Develop better bioinformatics course

Access to world-class trainers

Not a member?
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Gain international visibility as a trainer

Keep up-to-date with the latest developments in the training

INVITATION TO SPONSOR GOBLET

Opportunities to sponsor GOBLET activities:
❑ Annual General Meeting (AGM)
❑ ISMB booth
❑ Train the-trainer (TtT) events
❑ Student travel fellowship

Benefits:
❑ Representative attendance at AGM
❑ Session at event
❑ Logo featured at events
❑ Logo with link to organisation on GOBLET website (sponsor page)
❑ Advertisement in newsletter and/or website
❑ Sponsor materials made available at booth

Terms and conditions apply

Please contact the executive board for more details about sponsor opportunities.

-   ***By GOBLET PRO Team***

GOBLET Member Announcement Form and YouTube Channel

Do you want GOBLET to share your announcements? You can now do so by submitting your announcement information to us through our GOBLET member announcement form, here: https://bit.ly/gobletannouncementform.

The submitted information will be reviewed by the GOBLET PRO Team and once approved, it will be posted on the GOBLET Social Media platforms and website, where applicable.

We are pleased to announce that GOBLET has officially launched its own YouTube channel! We aim to fill this channel with promotional and educational content in the future, but in the meantime feel free to explore the various interesting presentations delivered during the GOBLET 2020 Annual General Meeting (AGM). Here you will learn about our recent activities and achievements but also hear about some of our future plans, as well as how you could get involved with GOBLET. If you are a member of GOBLET and have some interesting content or something, you'd like to feature on our YouTube channel, please contact our PRO team. While exploring our channel, remember to click subscribe to stay on top of any new content released by the GOBLET team.

- By GOBLET PRO Team

Image: GOBLET YouTube Channel
https://bit.ly/GOBLETYouTube