



# Global Organization for Bioinformatics Learning, Education & Training

2020 Newsletter – Issue 01

## Welcome and Highlights

Dear GOBLET Members,

The Executive Board wishes you an Inspiring & Successful 2020!

The AGM 2019 in Jakarta was a milestone as the first in Asia. The [Minutes](#) of which are now open for feedback and suggestions. We request members who were present at the AGM to include any relevant information that may have been missed. Furthermore, we want to point you to the [presentation of our former Chair, Terri Attwood](#), to get an overview of GOBLET accomplishments in 2019.

The first concrete **activity for 2020** that we are currently working on is the next **AGM**, which will be organised by Eija Korpelainen in Espoo (**Helsinki**), **Finland, 14-18 September 2020**. There will be several workshops in conjunction with the AGM: Mastery Rubric for Bioinformatics, Bringing bioinformatics to high schools, Train-the-Trainer, and Single cell RNA-seq data analysis. The latter two are organised in collaboration with ELIXIR and they are targeted for people wanting to become trainers on scRNA-seq.

We have also scheduled a Learning, Education and Training (LET) meeting on February 19, 2020 (13:00-14:00 CET). Everyone has been invited to participate in the teleconference discussion.

We also invite members to share news that they want to be tweeted or posted on our social media platforms.

Finally, we hope and expect that you contact us via [info@mygoblet.org](mailto:info@mygoblet.org) with all your questions, ideas and suggestions.

We look forward to working with all of you!

**- By The GOBLET Executive Board – Domenica, Eija, Asif, Annette, Javier and Celia**

## COMMITTEES

### Executive Board

Celia van Gelder, Chair  
Domenica D'Elia, Secretary  
Eija Korpelainen, Treasurer  
Annette McGrath  
Javier De Las Rivas  
Mohammad Asif Khan

### Executive Coordinators

LET (Learning, Education  
& Training)

Javier De Las Rivas  
[let@mygoblet.org](mailto:let@mygoblet.org)

MEF (Membership &  
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Annette McGrath  
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## GOBLET Learning, Education and Training (LET) - Tele-Conference Call to define the Action Plan for 2020: You are invited!

Dear GOBLET Member,

We are inviting you to join us for a Tele-Conference call to discuss and plan with all interested GOBLET members, the Action Plan for 2020 on “Learning, Education and Training (LET) in Bioinformatics”, which is a key part of GOBLET.

The call is expected to be 1 hour (max.), taking place on February 19, 2020, from 13:00 to 14:00 CET, to prepare a set of actions and activities in LET that we would like to work on in 2020, with the contribution and drive of all interested members. These actions can include, as an open proposal to discuss in the call, the following topics:

- (i) Participation in specific Conferences and Congresses;
- (ii) Interaction and cooperation with other bioinformatics organisations;
- (iii) Organisation of specific Courses or Workshops;
- (iv) Preparation of documents and open material for Train-the-Trainers in Bioinformatics;
- (v) Preparation of documents or articles focused on some specific aspect of LET in Bioinformatics; and
- (vi) Other suggestions are welcomed.

Please let us know by emailing to us ([info@mygoblet.org](mailto:info@mygoblet.org)):

- a) if you are going to attend the LET tele-conference call on February 19 (13-14:00 CET) or
- b) that you want to get involved in LET but are not available on the proposed date/time. We will then email you the minutes of the discussion and invite you to future LET tele-conference calls.

A calendar invite with Zoom teleconference call link and agenda will be sent to all those attending, closer to the date.

Please do not hesitate to contact us ([info@mygoblet.org](mailto:info@mygoblet.org)) if you have any questions.

**- By Javier De Las Rivas,  
Executive Coordinator of LET  
GOBLET Executive Board**



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## Mastery Rubric for Bioinformatics

The Mastery Rubric for Bioinformatics (MR-Bi), a new curriculum-development tool to support teaching and training, has been published in PLoS ONE:

<http://bit.ly/masteryrubricbioinformatics>

The MR-Bi prioritises the development of independent scientific reasoning and practice, and can contribute to the cultivation of a new generation of bioinformaticians, fluent in rigorous, reproducible research, and disciplined in critical thinking. The tool supports formal and informal teaching and training programmes, making explicit the roles of learners and instructors in, and their contributions to, the learning enterprise; it can be used for one-on-one supervision and mentoring, and for self-directed learning; it can also be used by any scientist, irrespective of prior experience, to guide their ongoing professional development.

The MR-Bi is the outcome of a 2-day workshop for bioinformatics trainers/teachers, held in Stockholm 2017. The workshop was hosted by Jessica Lindvall from the Stockholm University (DBB) and SciLifeLab Bioinformatics platform, and facilitated by Rochelle Tractenberg (Georgetown University, USA), Teresa Attwood (University of Manchester, UK) and Allegra Via (National Research Council, Italy).

**- By Terri Attwood,  
Immediate Past Chair, GOBLET Executive Board**

PLOS ONE

RESEARCH ARTICLE

The Mastery Rubric for Bioinformatics: A tool to support design and evaluation of career-spanning education and training

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### Abstract

As the life sciences have become more data intensive, the pressure to incorporate the requisite training into life-science education and training programs has increased. To facilitate curriculum development, various sets of (bio)informatics competencies have been articulated; however, these have proved difficult to implement in practice. Addressing this issue, we have created a curriculum-design and -evaluation tool to support the development of specific Knowledge, Skills and Abilities (KSAs) that reflect the scientific method and promote both bioinformatics practice and the achievement of competencies. Twelve KSAs were extracted via formal analysis, and stages along a developmental trajectory, from uninitiated student to independent practitioner, were identified. Demonstration of each KSA by a performer at each stage was initially described (Performance Level Descriptors, PLDs), evaluated, and revised at an international workshop. This work was subsequently extended and further refined to yield the Mastery Rubric for Bioinformatics (MR-Bi). The MR-Bi was validated by demonstrating alignment between the KSAs and competencies, and its consistency with principles of adult learning. The MR-Bi tool provides a formal framework to support curriculum building, training, and self-directed learning. It prioritizes the development of independence and scientific reasoning, and is structured to allow individuals (regardless of career stage, disciplinary background, or skill level) to locate themselves within the framework. The KSAs and their PLDs promote scientific problem formulation and problem solving, lending the MR-Bi durability and flexibility. With its explicit developmental trajectory, the tool can be used by developing or practicing scientists to direct their (and their team's) acquisition of new, or to deepen existing, bioinformatics KSAs. The MR-Bi is a tool that can contribute to the cultivation of a next generation of bioinformaticians who are able to design reproducible and rigorous research, and to critically analyze results from their own, and others', work.

### OPEN ACCESS

**Citation:** Tractenberg RE, Lindvall JM, Attwood TK, Via A (2019) The Mastery Rubric for Bioinformatics: A tool to support design and evaluation of career-spanning education and training. PLoS ONE 14(11): e0225256. <https://doi.org/10.1371/journal.pone.0225256>

**Editor:** Nicholas J. Provart, University of Toronto, CANADA

**Received:** June 6, 2019

**Accepted:** October 24, 2019

**Published:** November 26, 2019

**Peer Review History:** PLOS recognizes the benefits of transparency in the peer review process; therefore, we enable the publication of all of the content of peer review and author responses alongside final, published articles. The editorial history of this article is available here: <https://doi.org/10.1371/journal.pone.0225256>

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**Data Availability Statement:** All of the data are included in this manuscript; the data are qualitative and are included in the tables.



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## Member Highlights: H3ABioNet

H3ABioNet is a Pan African Bioinformatics network comprising of 26 nodes distributed across 16 African Countries and one US partner. H3ABioNet was established to develop bioinformatics capacity in Africa and specifically to enable genomics data analysis by H3Africa researchers across the continent. H3ABioNet has developed a number of tools and services which can be categorised into Bioinformatics Workflows, Standard Operating Procedures (SOP), Technical Guidelines, Computing Infrastructure and Node Accreditation and have also been driving the development of bioinformatics and genomics databases and resources for its members. H3ABioNet provides guidelines on the use of clinical data, data management and data standardisation, and provides support for REDCap as a data collection tool. They work with the H3Africa consortium to harmonise phenotypes and to map clinical and experimental data to existing ontologies in an effort to make the H3Africa and H3ABioNet outputs FAIR.

In addition to this H3ABioNet aims to increase the number of qualified bioinformatics graduates by creating research opportunities and providing financial support for promising young scientists across Africa, but also to attract young Africans studying abroad back to the continent for vital capacity development. H3ABioNet is funded by the NIH and hopes to continue to lead human capacity development in the coming years.

For more information visit any of our online sites:

Website: <https://www.h3abionet.org/>;

Facebook: <https://www.facebook.com/H3ABioNet/>;

Twitter: @H3ABioNet;

YouTube: @H3ABioNet





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## GOBLET Election 2019

During the GOBLET AGM 2019, which was hosted by the Asia-Pacific Bioinformatics Network (APBioNet) and YARSI University in Jakarta, Indonesia, the new GOBLET Executive Board was elected. All six (6) nominated GOBLET members (Domenica, Eija, Asif, Annette, Javier and Celia) were elected and are ready to help drive GOBLET forward in the coming years. We thank all GOBLET members for their vote and trust in our leadership.

The first thing we discussed was to establish the roles of the Chair, Secretary and Treasurer of GOBLET as key members of the Executive Board. Later, we discussed the idea of integrating the other three (3) members of the Executive Board with a specific position and role in the new Board, in order to have a unified and well coordinated action plan.

We thank the former Executive Board for all their efforts, and we are happy to announce that both Terri Attwood and Michelle Brazas will stay on-board in an advisory role. Terri will take on the formal role of Past President. Their support is highly valued.

Former Committee Members of GOBLET will be contacted soon by each one of the Executive Coordinators and we would be very glad if they would be willing to continue their contributions in the different activities. Additionally, we will invite all GOBLET members to partake in the activities of the various coordinators and contribute where possible. We seek active participation from all GOBLET members!

### Executive Board of GOBLET (elected in 2019):

**Chair of the Board**  
Celia van Gelder

**Secretary**  
Domenica D'Elia

**Treasurer**  
Eija Korpelainen

**Executive Coordinator of LET  
(Learning, Education & Training)  
activities**  
Javier De Las Rivas

**Executive Coordinator of MEF  
(Membership & Funding) activities**  
Annette McGrath

**Executive Coordinator of PRO  
(Public Relations & Outreach)  
activities**  
Mohammad Asif Khan



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## SAVE the Date for GOBLET AGM 2020!



We look forward to collaborating with you in 2020, more details on the activities will be sent soon. Please also save the date for our next **AGM**, which will take place in **Espoo (Helsinki), Finland, 14-18 September 2020**. It will be a week full of events including:

1. Mastery Rubric for Bioinformatics workshop 15.9.2020
2. Bringing bioinformatics to high schools, workshop 16.9.2020
3. Train-the-Trainer course 16.9.2020
4. Single-cell RNA-seq data analysis course 17.-18.9.2020

- **By Eija Korpelainen**  
**Chair, GOBLET AGM 2020**

## Call for GOBLET AGM 2021 Proposals

Are you interested in hosting our next AGM? Send your expression of interest or full proposal to [info@mygoblet.org](mailto:info@mygoblet.org).

### Format

- Proposals, not exceeding one side of A4, should contain:
- the name and institution of the local organiser
  - details of the proposed venue (for ~20-30 participants)
  - the range of dates available for the meeting
  - estimate of costs (including venue, catering, hotel, local transportation)
  - outlines of any plans to attract additional sponsorship
  - suggestions for satellite events/workshops to reach out to the local community

### Where GOBLET has been over the years:

- 2019 – Jakarta, ID
- 2018 – Toronto, CA
- 2017 – Oeiras, PT
- 2016 – Brisbane, AU
- 2015 – Cape Town, ZA
- 2014 – Toronto, CA
- 2013 – Norwich, UK
- 2012 – Amsterdam, NL

For information about previous meetings, see: <https://www.mygoblet.org/about-us/goblet-events>



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## Join GOBLET!

Connect to international resources and colleagues to network and exchange experiences

Develop better bioinformatics course

Access to world-class trainers



Not a member?  
Join us today!

[www.mygoblet.org](http://www.mygoblet.org)

Search

Contribute and influence global bioinformatics education and training

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 team if you are interested in sponsoring: [info@mygoblet.org](mailto:info@mygoblet.org)