

Protocol, Organism Biology steering committee meeting

Tuesday, May,28, 2024, 10:00- 12:00

Room A-436

Attending:

Mattias Thelander (chair)

Marisol Sánchez García

Stefanie Rosa

Simon Stael

Florentine Ballhaus

Georgios Tzelepis

Charles Melnyk

Martina Leso

Eula Gems Oreiro

Vahideh Rafiee (coordinator without right to take part in decisions)

Katarina Landberg (coordinator without right to take part in decisions)

§ 1 Meeting was opened by Mattias Thelander

- a) Vahideh Rafiee was appointed secretary.
- b) Marisol Sánchez García was appointed adjutor.
- c) The protocol from last meeting was approved.

§ 2 Final reports from concluded activities, decision (KL)

- a) Visualize your science, spring 2024

Katarina reported that this is a four-credit hands-on course covering how to use software for producing figures, graphs, making posters, etc. It is given by Andreas Dahlin at Visualize your Science. The course was finished with a small poster workshop in Ultuna in May, 2024. 20 PhD students registered. All students from SLU. 14 from NJ faculty and of those 12 from our research school, three students from Forest faculty in Umeå and three students from SLU Alnarp. So far, 13 students passed the course, and one from previous occasions. The original budget for the course was 110 000 SEK and 10 000 Euro has been spent. General opinion about the course was 5 of 5. The report was approved by the committee.

- b) Quantitative real-time PCR, spring 2024

Katarina reported that this is a hands-on 3.5 credits course, arranged by Alyona Minina at the department of Molecular Sciences. 9 students registered for the course, seven PhD students, one post-doc and one research engineer, all from SLU. 7 of the students were from Biocenter, 1 from the V faculty and 1 from plant breeding in Alnarp. All students have passed the course. The course was budgeted 100 000 SEK, and 87 000 was spent. General opinion about the course was 4.8 of 5. The report was approved by the committee.

§ 3 Status report of ongoing activities, information (KL and VR)

- a) Navigating large biological datasets using simple bioinformatic tools, Spring 2024 (VR).

Vahideh reported that this course was given by Eduardo Piombo at the Department of Forest Mycology and Plant Pathology. It is the second time that he gives this course. It was held on April 22th - 26th, 2024. 20 students had registered for the course, however 16 students showed up. Two students were outside SLU but the rest of students were from SLU. Some students still need to complete the assignments, however, 12 students have passed the course so far. The original budget for the course was 50000 SEK but we have received an invoice for 59 273 SEK which is a bit over budgeted for this course.

- b) Annual OB workshop for PhDs, Spring 2024 (KL, VR)

Vahideh and Katarina reported that the OB workshop is scheduled for June 3rd and 4th, 2024 at Gimo Herrgård conference hotel. Final schedule has been finalized and sent out to all participants. Workshop consists of two main parts. The first day has been scheduled for scientific speed talks, Careers outside academia sessions with 5 invited speakers from outside academia and will end with dinner and social activities. The second day will focus on scientific ways to better health with two invited speakers.

- c) Mycology course, autumn 2024 (VR)

Vahideh reported that the course will be given next semester in autumn and the preliminary date is Nov 11- Nov 18. The course organizers are Marisol Sánchez García and Georgios Tzelepis. More information will be given by the course leaders for the course plan and activities soon.

§ 4 Suggested new courses, discussion (MT, SS, KL)

- a) AI tools in Biology, 5 credits

This is a new course organized by Alyona Minina together with Jonas Ohlsson (Molecular Sciences) and Jonas Hentati Sundberg (Aquatic Resources). The aim is to introduce AI from the user point of view, with the hope to lower the bar for PhD students in biology to use AI tools in their research. They will also collaborate with AI Sweden (the national competence centre for AI) and SLUBI. The course is a collaboration with RS Focus on Food and Biomaterials which will register the syllabus. They plan to run the course in autumn 2024. OB contribution to the budget has been suggested to 40 000 SEK. The steering committee is positive to give the course accordingly.

- b) Genome editing by CRISPR/Cas9

This course has previously been given twice by Panos Moschou as the responsible organizer. We are now planning to give it a third time with Simon Stael at the Department of Molecular Sciences as the organizer. Mattias reported that so far, 5 students from Plant Biology are interested in taking the course, which should be sufficient. Less students from Molecular Sciences and Mykopat are interested in the

course based on personal communications of PhD representatives with the students. Simon reported that several people, such as Georgios Tzelepis, Shamik Mazumdar, and possibly Panos Moschou are interested in giving lectures. The course will be offered in the spring of next year, with a rough budget of around 50,000 SEK.

c) How to Choose a Scientific Problem, 3 credits

This new course idea came from Simon Stael at the Department of Molecular Sciences and is primarily based on a published paper by Michael Fischbach. The course focus on topics such as how to choose a scientific problem, develop an idea, and create a plan to publish a scientific paper. Michael Fischbach, the author of the paper, will give a lecture for the course. It is planned as a 3-day hybrid course, but it will mostly be conducted via Zoom since the main speaker is based in the US. It was suggested that the first and last days be held in person. During the meeting, several aspects of the new course were discussed, including the allocation of credits and budget. The committee suggested that 1.5 or 2 credits would be appropriate for the course. Additionally, the proposed budget seemed insufficient, and Simon was asked to reconsider both the budget and credits for further discussion in the next meeting.

d) Present your Science, 4 credits

This is a fairly new course offered by Andreas Dahlin and his team at Visualize Your Science. This course was discussed at the last meeting as a possible substitution for the cancelled Forest Pathology course. Additionally, it was recently suggested by one of the OB students. Katarina has approached Andreas about a collaboration on this course, and he is positive about the idea. The price for the course via the company is €675, but he offered us a price of €575 per person. He has also provided the schedule and a preliminary syllabus. After discussing and reviewing the syllabus, it was suggested by the steering committee to ask Andreas about the extent of content overlap with the Visualize Your Science course. The committee suggested to wait and see if the budget allows for further activities in 2024 before making any final decisions about when to offer this course.

§ 5 Updates to program and budget for autumn 2024, decision (KL)

Since the Forest Pathology course with an 85 000 SEK budget was postponed in spring, there is room for additional courses in the autumn program. After discussions, it was decided to add the AI course and the How to Choose a Scientific Problem course to the program. The cost for the Popular Science Writing course was also updated since we are now three research schools sharing the costs (50 000 SEK/3). Updated program and estimated costs for autumn 2024 (changes in red):

Name of activity	Estimated cost (1000 SEK)
Careers outside academia	6
Thesis summary writing workshop	8
PhD Student day	30
To communicate science	20
Understanding and coding the R programming language	30
Analysis of high throughput sequencing RNA-seq data	100
Mycology	80
Popular Science Writing	17
AI course (FFB, Alyona Minina)	40
How to Choose a Scientific Problem	40
Total sum:	371

§ 6 Report of FUN, NJ meeting for directors of studies for research schools, (VR, KL)

Vahideh reported from the FUN, NJ meeting for directors of study on April 29th, 2024:

- Research schools yearly reports have been presented and approved at a board meeting of Fun on 6th of March. The economic outcome was better than last year.
- Course announcements: PhD students still find planning and announcements to be late. Students need to be able to plan the course work. Questions raised at the meeting were: How much time ahead is needed? 3 month seems to be enough for some but quite short for others.
- AI in doctoral education. A course ‘AI tools in biology’, 5 HEC will be organized by Focus on Foods and Biomaterials and Organism Biology Research schools for fall 2024.
- Compensation to PhD students doing tasks for research schools. It is up to the department and/or research schools to discuss and decide on how this is done (like teaching). Some activities may be regarded as part of the learning and training within the education.

§ 7 Substitutes in the OB Steering group committee, decision (MT)

Mukesh Dubey from the Department of Forest Mycology and Plant pathology, Peter Bozhkov from the Department of Molecular Sciences and Germán Martínez-Arias from the Plant Biology department were suggested as substitutes of the members of the Organism Biology steering committee. Mattias will send the suggested names to FUN-NJ committee for approval.

§ 9 Additional questions (MT)

No additional questions were raised.

§ 10 Next meeting (MT)

The next meeting will take place October 7th, 2024.

Attachment:

- a) Proposed new course: How to Choose a Scientific Problem, 3 credits

Vahidehalsadat Rafieebanadaki, secretary

Date and Place

Marisol Sánchez García , adjustor

Date and Place

Signature page

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