Hints on how to prepare your presentation for the Pro-/Seminar SS25:

Machine learning tools for genomics and proteomics

Time: June 6, 13, 27 and July 4, 2025, from 1– 5 pm **Venue**: building E2 1, room 007

for detailed timetable and sequence of presentations see course website.

Condition for certification (Scheinerwerb):

(1) Successful presentation in English language (see below for the criteria to judge presentations). Also the discussions will be done in English.

(2) Regular (≥ 75 %) attendance. (See below for the criteria).

Content

The Pro-/Seminar will contain ≤ 16 topics. Each **topic** consists of

- a 30 min (proseminar) or 40 min (seminar) presentation
- a 10 min long discussion about the scientific topic
- a 5 min open discussion of the presentation style

The point of the **presentation** is to present a scientific question and some related findings to your audience. It is certainly advisable to show that you are very competent in this area, but it is equally important how much of your knowledge is being transferred to the audience.

The point of the **first discussion** is to clarify open points. Often, participants can profit from the content of these discussion sections as much as from the presentation itself. Besides, asking scientific questions and responding to them is an important part of a scientific presentation at other research institutions or at conferences. Therefore, all participants of the seminar are invited to participate in the two discussion sections.

The purpose of the **second discussion** is to provide feedback to the presenter about the style of his/her presentation. Learning how to give good presentations is the most important aim of this seminar. Learning how to provide constructive and fair critique is another point. In the past, the students found this part quite helpful.

Questions
In order not to disturb the presenter too much (Lampenfieber! engl: stage fright) during his/her presentation, we will limit questions during the presentation to short questions for clarification.

Preparation for your talk:

- you should have consulted your tutor for preparation of your topic (this is not a must, only an offer from our side)
- if you start your presentation with an **outline** of the talk, it should not simply include "introduction - methods - results - discussion - summary" but be filled with some content.

- Then your talk should continue with an **introduction** into the topic and the **scientific question**. At the end of this introduction it should be **clear to everybody** in the audience what the subject of your talk is.
- In the **methods** section, you should always describe the main strategy how you (or the authors) arrived at the results that you will present. You may select certain aspects of the methods to present in more detail.
- in the **results** part, don't try to be comprehensive. Don't show all results that the authors (or you) obtained. Focus on the most important and interesting ones and explain why they are interesting.
- in the **discussion** section, discuss possible limitations of this work, its relevance for the scientific question, and provide an **outlook** and a very short summary (**take-home message**)
- once finished, you should give the talk a few times to yourself (speak loud) and, if possible, to your friends. Measure the time required for these exercise talks.

Criteria for a good talk:

- be familiar with the technical equipment before your talk.
- speak loud and clearly. Don't speak too fast.
- be enthusiastic about your topic. Try to involve the audience.
- use examples for explanations.
- If suitable, you may make a drawing on the blackboard (flip chart) for explaining something in detail.
- during the talk, you and the audience should always know in which part of the talk you are.
- control the time of your talk (30 or 40 minutes). One or two extra minutes are no problem, but you will be interrupted if you speak more than 10 minutes too long.
- If you like, you may plan to make 1-2 jokes during your presentation ... not too many.

Criteria that will be used for judging your presentation

- scientific content: is the provided information correct?
- Your ability to answer questions correctly and adequately.
- Did you "reach" the audience? Was the presentation interesting and/or fascinating?
- We will not judge the quality of your spoken English!

Some hints about good Powerpoint Overheads:

- use at least font 18 pt. Don't put more than 10 lines of text on one slide.
- It is helpful for the discussion section to include page numbers at the bottom of every slide
- use pictures! Ideally one on every slide.
- put only material on the slide that will be presented. The only exceptions are citations of research articles and those for pictures taken from somewhere else. You need to give the citation for every foreign picture your present! Here, it is sufficient to place the citation on the slide without reading it loud to the audience.
- plan at least 1,5 minutes per slide. Some slides of the introduction and of the methods section may require more time.

Try to avoid the following popular "mistakes" on your slides

- diagram axes are not labelled ... don't forget to label the x- and y-axis and put units
- don't put too much information on one slide. Rather use two slides.
- don't write full sentences on your slides
- try to use figures instead of long tables

Try to avoid the following popular “mistakes” during your presentation

- face the audience during your presentation, not the presentation board! If you like, you can look at the screen of your laptop in between.
- Don’t look to the ceiling of the room instead of the audience.
- Speak load and clearly, don’t speak too fast (see above)
- Try to breathe normally. Otherwise, the audience will get hectic with you.
- Use your hands to emphasize and illustrate. If you hide your hands in the pockets of your pants, the audience will feel uncomfortable.
- Don’t get lost with details during your talk.

Open discussion 2:

<u>How should one criticize in this discussion?</u>

- be constructive
- be descriptive, don't try to interpret
- be specific - mention particular points that could be improved
- speak from your own perspective, don't generalize. E.g. "From my point of view ... ", "I didn't like the way you ..."
- also positive points should be named
- avoid questions

<u>How should you accept critique in this discussion?</u>

- don't interrupt
- don't try to defend yourself
- you ask for clarification, but don't start a real discussion
- you should (try to) be grateful