TIGP-BIO 2023 Spring Syllabus & Guidelines
Student Presentation

For the latest syllabus, please visit the BP website: https://tigpbp.iis.sinica.edu.tw

Place: Online (Skype): https://join.skype.com/ycvKdxnlMeku
Time: Thursday, 15:30-17:00
Chair: Dr. Chuan-Hsiung Chang (cchang@nycu.edu.tw), Dr. Chen-Ching Lin (chenching.lin@nycu.edu.tw)
*Effective from the 2014 Fall semester, all TIGP-BP students are required to present once a semester in student presentation.
*First Year Students: the paper should be assigned by your lab professor.
*The following schedule is confirmed and will not be changed. Please contact Dr. Chuan-Hsiung Chang and Dr. Chen-Ching Lin if you do have difficulty with the assigned date.
*The presenter shall introduce the host and attended professors at the beginning of each seminar.

Week	Date	Topic	Student
1	2023/2/16	Exon architecture controls mRNA m^6A suppression and gene expression	Tzu-Hsiang Lin 林子翔
2	2023/2/23	Deep generative model embedding of single-cell RNA-Seq profiles on hyperspheres and hyperbolic spaces	Yin-Cheng Chen 陳胤丞
3	2023/3/2	Discovery of Ongoing Selective Sweeps within Anopheles Mosquito Populations Using Deep Learning	Daniel Garcia-Ruiz 丹尼爾加西亞
4	2023/3/9	Screening cell–cell communication in spatial transcriptomics via collective optimal transport	Ping-Yun Ou 歐秉昀
5	2023/3/16	Discovery of driver non-coding splice site creating mutations in cancer	Rodrigo Espinoza Silva 羅德
6	2023/3/23	Linear and nonlinear correlation estimators unveil undescribed taxa interactions in microbiome data	Shu-Chuan Chen 陳淑娟
7	2023/3/30	Review Week (no class)	--
8	2023/4/6	Midterm Exam (no class)	--
9	2023/4/13	DRPreter: Interpretable Anticancer Drug Response Prediction Using Knowledge-Guided Graph Neural Networks and Transformer	Chi-Tang Wang 王啓唐
10	2023/4/20	tappAS: a comprehensive computational framework for the analysis of the functional impact of differential splicing	Shang-Kok Ng 黃襄國
11	2023/4/27	--	--
12	2023/5/4	--	--
13	2023/5/11	--	--
14	2023/5/18	--	--
15	2023/5/25	Review Week (no class)	--
16	2023/6/1	Final Exam (no class)	--

< Seminar presentation guidelines on the following pages >

Seminar presentation guidelines for Ph.D. program students:

2023-01-18

This research seminar course is intended to provide students planning a research career in Bioinformatics with the opportunity to develop the skill of critically reading and evaluating research papers. The course consists of a weekly timetabled session in which students will read, present and discuss research papers published on high impact journals. A fixed threshold of impact factors is not imposed. Use your common sense instead.

Guidelines:

1. **Research article**: Each week, students will choose RESEARCH papers to be presented. The paper (+ supplements) pdf file should be emailed to cchang@nycu.edu.tw (Dr. Chuan-Hsiung Chang), chenching.lin@nycu.edu.tw (Dr. Chen- Ching Lin), tigpbio@gate.sinica.edu.tw (TIGP_Bio), all students in student presentation class, and also other participating professors at least one week before your in-class seminar presentation takes place. Any delay will result in 10 points deducted from your final grade. Please also send the slides to everyone 2 days before the report. Because some modifications may be made right before the report, it is okay if the slides are not the final version.

1. **Article selection:** You are required to select a recent RESEARCH article that was published after September 2020. (Review articles are NOT acceptable.)

2. **Presentations**: Everyone in the class will present one paper. You should plan to talk for around 40 minutes. Starting from this you should initiate a discussion of the paper (so it is a good idea to conclude your slide presentation with a selection of points to consider and discuss). We should plan to have time for a lively discussion of each paper; your job in giving a presentation is to initiate this discussion. Make sure to
    a. Draw **valid** conclusions from results of your presented paper.
    b. Summarize evidence for each conclusion. (How does the paper support its conclusions?)
    c. Compare the results with other similar experiments published previously, if appropriate.

    - Please refrain from presenting an article written by your supervisor or your friends/classmates. You need to increase the exposure to the breadth and depth of bioinformatics research.
    - Students are encouraged to prepare a few questions for group discussion at the end of the presentation. Students are not expected to simply sit in the class.
    - Please make a rehearsed presentation if you don't know how long your presentation is

going to last. An over-length presentation doesn't translate to a good one.

3. **Language of presentation**: You are required to present your research article in English.

Evaluation Criteria:

You will be evaluated by the following criteria:

1. Your seminar presentation (70%).
2. Your participation of discussion (30%).
   Note: you must participate the discussion, e.g., at least asking one question in each presentation, to obtain this 30% of your final grade. If you don't ask question in any class, this grade will be zero.