# TIGP-BIO 2022 Fall 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 | 2022/9/8 | No class | |
| 2 | 2022/9/15 | Network-based machine learning approach to predict immunotherapy response in cancer patients | Rodrigo Espinoza Silva 羅德 |
| 3 | 2022/9/22 | Effects of sequence motifs in the yeast 3′ untranslated region determined from massively parallel assays of random sequences | Tzu-Hsiang Lin 林子翔 |
| 4 | 2022/9/29 | Enhanced detection of minimal residual disease by targeted sequencing of phased variants in circulating tumor DNA | Shang-Kok Ng 黃襄國 |
| 5 | 2022/10/6 | Deep neural network trained on gigapixel images improves lymph node metastasis detection in clinical settings | Chi-Tang Wang 王啓唐 |
| 6 | 2022/10/13 | Prediction of neo-epitope immunogenicity reveals TCR recognition determinants and provides insight into immunoediting | Po-Yuan Chen 陳柏元 |
| 7 | 2022/10/20 | Review Week (no class) | -- |
| 8 | 2022/10/27 | Midterm Exam (no class) | -- |
| 9 | 2022/11/3 | Integrated cohort of esophageal squamous cell cancer reveals genomic features underlying clinical characteristics | Chien-Jung Huang 黃千容 |
| 10 | 2022/11/10 | Deep transfer learning of cancer drug responses by integrating bulk and single-cell RNA-seq data | Ping-Yun Ou 歐秉昀 |
| 11 | 2022/11/17 | Identification of shared and disease-specific host gene–microbiome associations across human diseases using multi-omic integration | Shu-Chuan Chen 陳淑娟 |
| 12 | 2022/11/24 | Developmental Deconvolution for Classification of Cancer Origin | Yi-Chen Yeh 葉奕成 |

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|---|---|---|---|
| 13 | 2022/12/1 | Host-mediated selection impacts the diversity of - Nature | Daniel Garcia-Ruiz 丹尼爾加西亞 |
| 14 | 2022/12/8 | No class | |
| 15 | 2022/12/15 | Review Week (no class) | -- |
| 16 | 2022/12/22 | Final Exam (no class) | -- |

< Seminar presentation guidelines on the following pages >

# Seminar presentation guidelines for Ph.D. program students:

2021-08-26

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 attendance (10%).
2. Your seminar presentation (70%).
3. Your participation of discussion (20%).