

**TIGP Bioinformatics Program**  
**Student Presentation**  
**Fall 2025 Syllabus & Guidelines**

Latest syllabus: <https://idv.sinica.edu.tw/tigpbio/>

**Place:** Online (**Google Meet**): <https://meet.google.com/tdr-jtku-fkn>

**Time:** Thursday, 15:30-17:00

**Chair:** Dr. Hsuan-Cheng Huang ([hsuancheng@nycu.edu.tw](mailto:hsuancheng@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. Hsuan-Cheng Huang 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	Instructor *BP student's presentation should be evaluated by their respective thesis advisor or lab advisor.
1	2025/9/4	<a href="#">SHARK enables sensitive detection of evolutionary homologs and functional analogs in unalignable and disordered sequences</a>	Hsin-Ying Chang (BP)	Dr. Chuan Ku
2	2025/9/11	<a href="#">Unsupervised clustering identified clinically relevant metabolic syndrome endotypes in UK and Taiwan Biobanks</a>	Ru-Yin Jian (BP)	Dr. Huai-Kuang Tsai
3	2025/9/18	<a href="#">A pathology foundation model for cancer diagnosis and prognosis prediction</a>	Hsu-Ching Huang (NYCU)	Dr. Hsuan-Cheng Huang
4	2025/9/25	<a href="#">A Foundation Model for Generalizable Disease Detection from Retinal Images.</a>	Apriandy Angdresey (BP)	Dr. Hsin-Chou Yang
5	2025/10/2	<a href="#">The landscape of tolerated genetic variation in humans and primates</a>	Hsuan-Ya Chiu (NYCU)	Dr. Hsuan-Cheng Huang
6	2025/10/9	No class	--	--

7	2025/10/16	Review Week (no class)	--	
8	2025/10/23	Midterm Exam Week (no class)	--	
9	2025/10/30	<a href="#">CelloType: a unified model for segmentation and classification of tissue images</a>	Ching-Ya Lin (BP)	Dr. Huai-Kuang Tsai
10	2025/11/6	No class	--	--
11	2025/11/13	<a href="#">Dissecting cell identity via network inference and in silico gene perturbation</a>	Daniel Nelson (BP)	Dr. Sheng-Hong Chen
12	2025/11/20	<a href="#">Sequence modeling and design from molecular to genome scale with Evo</a>	Ya-Chu Hsu (BP)	Dr. Hsiao-Chun Huang
13	2025/11/27	<a href="#">Reengineering of a flavin-binding fluorescent protein using ProteinMPNN</a>	Saptashwa Datta (BP)	Dr. Lee-Wei Yang
14	2025/12/4	<a href="#">A visual-language foundation model for computational pathology</a>	Thi Huong Giang Pham (BP)	Dr. Chun-Ying Wu
15	2025/12/11	Review Week (no class)	--	
16	2025/12/18	Final Exam Week (no class)	--	

< Seminar presentation guidelines on the following pages >

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

2025-07-10

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.
  - a. For NYCU students not in the TIGP-Bio program, the paper (+ supplements) pdf file should be emailed to (1) [hsuancheng@nycu.edu.tw](mailto:hsuancheng@nycu.edu.tw) (Dr. Hsuan-Cheng Huang), (2) [tigpbio@gate.sinica.edu.tw](mailto:tigpbio@gate.sinica.edu.tw) (TIGP-Bioinformatics Program office), (3) all students in student presentation class, and also (4) 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.
  - b. For TIGP-Bio students, the paper (+ supplements) pdf file should be emailed to (1) your thesis advisor/lab advisor, (2) [tigpbio@gate.sinica.edu.tw](mailto:tigpbio@gate.sinica.edu.tw) (TIGP-Bioinformatics Program office), (3) all students in student presentation class, and also (4) 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 (90%).