

TIGP Bio 2021 Spring Syllabus & Guidelines

Student Presentation

Place: Room 101, New Building of the Institute of Information Science, Academia Sinica

Time: Thursday, 15:30-17:00

Chair: Dr. Chuan-Hsiung Chang (cchang@ym.edu.tw), Dr. Chen-Ching Lin (chaoslin@ym.edu.tw)

*Effective from 2014 Fall semester, all TIGP-BP students are required to present once a semester in seminar.

*Students are required to submit the topics by **Feb 25, 2021** (First Year Students: The paper will 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 a difficulty on the assigned date.

*The presenter shall introduce the host and attended professors in the beginning of each seminar.

For the most up-to-date syllabus, please visit <https://tigbbp.iis.sinica.edu.tw/tigbbio/index.html>

Week	Date	Topics	Student
1	2021/02/25	N/A	N/A
2	2021/03/04	Major Impacts of Widespread Structural Variation on Gene Expression and Crop Improvement in Tomato	Hsin-Han Lee 李昕翰
3	2021/03/11	Diversity of Cytosine Methylation Across the Fungal Tree of Life	Yu-Chun Huang 黃郁琿
4	2021/03/18	Quantifying the effect of experimental perturbations at single-cell resolution. Nat Biotechnol (2021)	Yueh-Hua Tu 杜岳華
5	2021/03/25	Learning the Language of Viral Evolution and Escape	David Nicola Streuli 施大衛
6	2021/04/01	Mendelian Randomization Accounting for Correlated and Uncorrelated Pleiotropic Effects Using Genome-Wide Summary Statistics	Jia-Ying Su 蘇家瑩
7	2021/04/08	Review Week	--
8	2021/04/15	Midterm Exam	--
9	2021/04/22	(Cancelled)	Po-Yuan Chen 陳柏元
10	2021/04/29	A Cancer Drug Atlas Enables Synergistic Targeting of Independent Drug Vulnerabilities	Yu-Ching Hsu 徐于晴
11	2021/05/06	DNABERT: pre-trained Bidirectional Encoder Representations from Transformers model for DNA-language in genome	Chung-En Ni 倪崇恩 (NYCU)
12	2021/05/13	Systematic Assessment of Secondary Bile Acid Metabolism in Gut Microbes Reveals Distinct Metabolic Capabilities in Inflammatory Bowel Disease	Shu-Chuan Chen 陳淑娟 (NYCU)
13	2021/05/20	A Universal Gut-Microbiome-Derived Signature Predicts Cirrhosis	Chien Jung Huang 黃千容 (NYCU)
14	2021/05/27	Discovery of rare variants associated with blood pressure regulation through meta-analysis of 1.3 million individuals	Tsai-Yang Sun 孫在陽 (NYCU)

15	2021/06/03	Review Week	--
16	2021/06/10	Final Exam	--

[< Seminar presentation guidelines on the following pages >](#)

Seminar presentation guidelines for PhD program students:

2021-3-17

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@ym.edu.tw (Dr. Chuan-Hsiung Chang), chaoslin@ym.edu.tw (Dr. Chen-Ching Lin), tigp.bio@gmail.com, tckuo@ym.edu.tw, 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 modification may be made right before the report, it is okay if the slides are not the final version.
2. **Article selection:** You are required to select a recent RESEARCH article that was published after February 2019. (Review articles are NOT acceptable.)
3. **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.

4. **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%).