

TIGP Bioinformatics Program

Seminar

Spring 2025 Syllabus

For the latest syllabus, please visit the BP website: <https://idv.sinica.edu.tw/tigpbio/>

Seminar Announcement: <https://www.stat.sinica.edu.tw/cht/index.php?>

Place: Auditorium, B1F, Institute of Statistical Science, Academia Sinica.

Time: Thursday 14:00-15:20

Chair: Academia Sinica: Dr. Chung-Yen Lin (Informatics), Dr. Chien-Ling Lin (Biology), Dr. Wei-Chung Liu (Statistics)

Remarks:

1. Attend 2 non-BP Seminars (on or off campus) conducted in English within the current semester. *The deadline for the report is **June 12th, 2025**.
2. Write 2 seminar reports (1-page A4, 12pt font, single-spaced). Template: “[TIGP-BP Seminar Student Report](#)”(click to download).
3. Send the reports to your advisor/lab professor for grading and signature.
4. Submit the graded and signed reports (PDF file) to the BP office before June 12th.

Grades: Attendance 100% (2 non-BP seminar reports included)

Week	Date	Topics/Brief Description	Speaker's Affiliation	Speaker	Abstract	Student Host
1	2025/2/20	DNA-protein crosslinks (DPCs) in cancer	Institute of Precision Medicine, National Sun Yat-sen University	Prof. Hao-Yi (Ricky) Li	🔗	Hsin-Ying Chang (1)
2	2025/2/27	Causal Inference and Genome-wide Multimediator Analyses	Institute of Statistical Science, Academia Sinica	Dr. En-Yu Lai	🔗	Apriandy Angdresey (1)
3	2025/3/6 @Webex Only	AI in drug discovery and clinical trials	Graduate Institute of Biomedical Engineering and Bioinformatics, National Taiwan University	Prof. Yufeng Jane Tseng	🔗	Daniel Garcia-Ruiz (1)
4	2025/3/13 @Webex Only	Uncovering Amyloid Beta Misfolding Mechanisms and Inhibitors: Insights from Molecular Docking and Dynamics Simulations	School of Electrical & Computer Engineering, University of Georgia	Prof. Zhong-Ru Paul Xie	🔗	Cai-Sian Liao (1)

5	2025/3/20	How p53 Keeps the Beat: Allelic Buffering Sustains Robust Oscillations	Institute of Molecular Biology, Academia Sinica	Dr. Feng-Shu Hsieh	🔗	Ru-Yin Jian (1)
6	2025/3/27	Investigating long-range cis-regulation mechanisms in Drosophila using deep learning	Department of Biomedical Engineering, National Cheng Kung University	Prof. Tzu-Hsien Yang	🔗	Shang-Kok Ng
7	2025/4/3	Makeup Holiday for Children's Day & Review Week (no class)	--	--	--	
8	2025/4/10	Midterm Exam Week (no class)	--	--	--	
9	2025/4/17 @Webex Only	Machine Learning for Oncology Care Management from risk assessment, diagnostic support, to treatment selection and development	Electrical Engineering Department, National Taiwan University	Prof. Joyce Tzu-Yu Liu	🔗	Apriandy Angdresey (2)
10	2025/4/24	Bacteriophages carrying lipopolysaccharide (LPS) endoglycosidase sensitize bacteria to interbacterial antagonism	Institute of Molecular Biology, Academia Sinica	Dr. See-Yeun Ting	🔗	Cai-Sian Liao (2)
11	2025/5/1	Multiplexed assays of human disease-relevant mutations reveal UTR dinucleotide composition as a major determinant of RNA stability	Institute of Statistical Science, Academia Sinica	Dr. Jia-Ying Su	🔗	Daniel Garcia-Ruiz (2)
12	2025/5/8	Fatty Liver Classification via Risk Controlled Neural Networks Trained on Grouped Ultrasound Image Data	Institute of Statistical Science, Academia Sinica	Dr. Tso-Jung Yen	🔗	Ping-Yun Ou
13	2025/5/15	Leveraging Genomic Data for Precision Diagnosis and Population Health Insights in Taiwan	Graduate Institute of Medical Genomics and Proteomics, National Taiwan University	Prof. Jacob Shujui Hsu	🔗	Ru-Yin Jian (2)
14	2025/5/22	Nile Rat (<i>Arvicanthis niloticus</i>) as a Model for Advancing Biomedical and Evolutionary Science	Institute of Population Health Sciences, National Health Research Institutes	Dr. Ben Yang Liao	🔗	Hsin-Ying Chang (2)

15	2025/5/29	Review Week (no class)				
16	2025/6/5	Final Exam Week (no class)				