

## TIGP Bio 2022 Spring Syllabus Seminar

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

**Place:** Room 101, New Building of the Institute of Information 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)

**Note:** Attend any 2 non-BP Seminars (either on campus or off campus is fine) and submit a seminar report for each seminar to advisor/lab professor. After grading and signature is completed by the professor, send the report to the BP office (tigbbio@gate.sinica.edu.tw) by **June 10<sup>th</sup>, 2022**.

**Form:** [TIGP-BP Seminar Student Report](#) (Format: 1 page A4, 12pts font, single spaced).

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

Week	Date	Topics/Brief Description	Speaker's Affiliation	Speaker	Web	Student Host
1	2022/02/17	N/A (no class)	--	--	--	--
2	2022/02/24	New Wine in Old Bottles: Uncovering Important Genes Underlying a Complex Trait Using an Evolutionarily Informed Machine Learning Pipeline	Department of Life Science, National Taiwan University	Prof. Chia-Yi Cheng		Po-Yuan Chen
3	2022/03/03	Development of a Brain-Machine Interface Device for Studying Large-scale Neural Activity in Behaving Animals	Institute of Molecular Biology, Academia Sinica	Dr. Yu-Wei Wu		Yu-Chun Huang
4	2022/03/10	Prediction of the Response of Cancer Patients to Therapies	Institute of Statistical Science, Academia Sinica	Dr. Grace S. Shieh		Aishwarya Tiwari
5	2022/03/17	N/A (no class)	--	--	--	--
6	2022/03/24	Using Deep Learning to Understand the Evolution of Animal Morphology	Biodiversity Research Center, Academia Sinica	Dr. Sheng-Feng Shen		Yu-Ching Hsu
7	2022/03/31	Review Week (no class)	--			
8	2022/04/07	Midterm Week (no class)	--			
9	2022/04/14 <a href="#">@Webex</a>	Exploring Roles of Parasitism in Ecological Networks	Department of Biological Resources, National Chiayi University	Prof. Hsuan-Wien Chen		Rodrigo Espinoza

10	2022/04/21 <a href="#">@Webex</a>	AI Roadmap in Biomedical Research: From Images to Omics	Centers of Genomic and Precision Medicine, National Taiwan University	Dr. Nam Nhut Phan		David Nicola Streuli
11	2022/04/28 <a href="#">@Webex</a>	Multi-Omic Approaches Towards Molecular Profiling of Human Diseases	Institute of Biomedical Sciences, Academia Sinica	Dr. Shih-Yu Chen		Jia-Ying Su
12	2022/05/05 <a href="#">@Webex</a>	AI Drug Discovery -- A Case for Schizophrenia	Department of Computer Science and Information Engineering, National Taiwan University	Prof. Yu-Feng Jane Tseng		Tzu-Hsiang Lin
13	2022/05/12 <a href="#">@Webex</a>	From Linear Structural Equation Modeling to Generalized Multiple Mediation Formula Keywords: causal inference, mediation analysis, multiple mediation, SEM, counterfactual, interventional approach.	Institute of Statistics, National Yang Ming Chiao Tung University	Prof. Sheng-Hsuan Lin		Yueh-Hua Tu
14	2022/05/19 <a href="#">@Webex</a>	A Geo-Spatial Approach to Precision Public Health	Research Center for Humanities and Social Sciences, Academia Sinica	Dr. Ta-Chien Chan		Hao-Jen Deng
15	2022/05/26	Review Week (no class)	--			
16	2022/06/02	Final Exam Week (no class)	--	--		--