

TIGP Bio 2023 Fall Syllabus Seminar

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

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 (due on December 29th):


Step 1 Attend any 2 non-BP Seminars—either on campus or off campus is acceptable—and send 2 seminar reports in the specified format (1-page A4, 12pts font, single-spaced) titled “**TIGP-BP Seminar Student Report** ([click to download](#))” to your advisor/lab professor. The 2 chosen non-BP seminars should be conducted in English and attended within the current semester (i.e. September 5th to December 29th).

Step 2 Once your reports have been graded and signed by the advisor/lab professor, kindly submit them to the TIGP-BIO office (tigpbio@gate.sinica.edu.tw) before the deadline of December 29th, 2023.

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

| Week | Date | Topics/Brief Description | Speaker's Affiliation | Speaker | Abstract | Student Host |
|------|--|--|--|-------------------------------------|---|------------------------|
| 1 | 2023/9/7 | No class. Please refer to the remark. | -- | -- | -- | -- |
| 2 | 2023/9/11 (Mon) 9:00-10:20 <u>Webex Only</u> | Deep Learning for Predicting the Response to Chemical and Genetic Perturbations of Cancer | Division of Hematology/Oncology, Department of Medicine, University of Pittsburgh, USA | Prof. Yu-Chiao Chiu |  | Yu-Ching Hsu |
| 2 | 2023/9/14 | Taiwan Precision Medicine Initiative: The Experience from Taichung Veterans General Hospital | Department of Medical Research, Taichung Veterans General Hospital | Dr. Tzu-Hung Hsiao |  | Rodrigo Espinoza Silva |
| 3 | 2023/9/21 Rescheduled to 9/11 | Rescheduled to 9/11 | -- | -- | -- | -- |
| 4 | 2023/9/28 | Unveiling Clinical Outcomes in Liver Diseases: Exploring Virus-Related Factors and Host Genetic Variants | Institute of Clinical Medicine, National Yang Ming Chiao Tung University | Prof. Mei-Hsuan Lee |  | Shang-Kok Ng |

| | | | | | | |
|----|--|---|---|--|---|------------------------|
| 5 | 2023/10/5 | Profiling Taiwan Population Genomic Variants Reveals Medical Insights | Graduate Institute of Medical Genomics and Proteomics, National Taiwan University | Prof. Shu-Jui Hsu |  | Cai-Sian Liao |
| 6 | 2023/10/12 @R308 | Bioinformatics and Big Data Analytic Tools Light Up Emerging Infectious Disease Researches and One Health Concerns | Biomedical Translation Research Center, Academia Sinica | Dr. Wen-Chun Liu |  | Tzu-Hsiang Lin |
| 7 | 2023/10/19 | Review Week (no class) | -- | -- | -- | -- |
| 8 | 2023/10/26 | Midterm Exam Week (no class) | -- | -- | -- | -- |
| 9 | 2023/11/2 @R308 | Delving into the Significance of Deep Learning and Its Indispensable Role in Data Analysis and Image Processing | Department of Electrical Engineering, National Taipei University | Prof. Haobijam Basanta |  | Yu-Ching Hsu |
| 10 | 2023/11/9 | Deep Learning in Musculoskeletal Ultrasound Imaging | Department of Electrical Engineering, National Taiwan University | Prof. Po-Ling Kuo |  | Ping-Yun Ou |
| 11 | 2023/11/15 (Wed) 9:00-10:20 Webex Only | Unraveling the Genetic Landscape of Alzheimer's Disease Through Association Analysis on Large-Scale Whole Genome Sequence Data, Including Common and Rare Variants as well as Structural Variants | Pathology and Laboratory Medicine, Perelman School of Medicine, University of Pennsylvania, USA | Prof. Wan-Ping Lee |  | Rodrigo Espinoza Silva |
| 12 | 2023/11/23 | Designing Personalized Cancer Vaccines: A Bioinformatics Approach to Neoantigen Analysis | Institute of Biomedical Science, Academia Sinica | Dr. Mi-Hua Tao |  | (Daniel Garcia-Ruiz) |
| 13 | 2023/11/30 | Efficient Information Usage by Cells – and Cell Biologists | Institute of Molecular Biology, Academia Sinica | Dr. Keita Kamino |  | Shang-Kok Ng |
| 14 | 2023/12/7 Rescheduled to 12/15 | Rescheduled to 12/15 | -- | -- | -- | -- |

| | | | | | | |
|----|--|--|--|--|---|--------------------|
| 15 | 2023/12/15 (Fri) 10:00-11:20 <u>Webex Only</u> | AI, Systems Glycobiology, and Immunology: A Trifecta for Advancing Medical Discovery and Transforming Medicine | Immunology Center of Medical College of Georgia, Augusta University, USA | Dr. Wan-Tien (Austin) Chiang |  | Daniel Garcia-Ruiz |
| 16 | 2023/12/21 | Final Exam Week (no class) | -- | -- | -- | -- |