

# TMU The 2nd International Symposium on Drug Discovery July 2<sup>nd</sup> – 3<sup>rd</sup>, 2024 | Taipei, Taiwan

## Speaker information

#### **General Information**

Name	Liang-Tzung Lin
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Affiliation	Taipei Medical University
Education Background	Ph.D., Microbiology & Immunology, <i>Dalhousie University, Canada</i> M.S., Medical Biophysics, <i>University of Toronto, Canada</i> B.S., Microbiology & Immunology, <i>McGill University, Canada</i>
Professional Appointment	Professor, Dept. of Microbiology and Immunology  Head, Molecular Virology & Oncolytics Laboratory  Chief, International Research Section, Office of Global Engagement  Taipei Medical University, Taiwan  Adjunct Faculty, Dept. of Microbiology & Immunology  Dalhousie University, Canada  Committee Member & Co-Investigator  Canadian Network on Hepatitis C (CanHepC), Canada
Research Interest	Molecular Virology Viral Entry Emerging Viruses Antiviral Strategies Vector Engineering Oncolytic Viro-Immunotherapy



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Website (if any) mvol.tmu.edu.tw/

#### **Recent Publications (up to 10)**

- 1. Liu CH1, Leu SJ1, Lee CH, Lin CY, Wang WC, Tsai BY, Lee YC, Chen CL, Yang YY\*, Lin LT\*. Production and characterization of single-chain variable fragment antibodies targeting the breast cancer tumor marker nectin-4. Front Immunol. 2024 Jan 15;14:1292019.
- 2. Liu CH, Kuo YT, Lin CJ, Lin LT\*. Involvement of cell surface glycosaminoglycans in chebulagic acid's and punicalagin's antiviral activities against coxsackievirus A16 infection. Phytomedicine. 2023 Nov;120:155047.
- 3. Belem WF, Liu CH, Hu YT, Burnouf T, Lin LT\*. Validation of Viral Inactivation Protocols for Therapeutic Blood Products against Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-COV-2). Viruses. 2022 Oct 31;14(11):2419.
- 4. Kuo YT, Liu CH, Corona A, Fanunza E, Tramontano E, Lin LT\*. The Methanolic Extract of Perilla frutescens Robustly Restricts Ebola Virus Glycoprotein-Mediated Entry. Viruses. 2021 Sep 8;13(9):1793.
- 5. Liu CH, Wong SH, Tai CJ, Tai CJ, Pan YC, Hsu HY, Richardson CD, Lin LT\*. Ursolic Acid and Its Nanoparticles Are Potentiators of Oncolytic Measles Virotherapy against Breast Cancer Cells. Cancers (Basel). 2021 Jan 4;13(1):136.
- 6. Kuo YT, Liu CH, Li JW, Lin CJ, Jassey A, Wu HN, Perng GC, Yen MH, Lin LT\*. Identification of the phytobioactive Polygonum cuspidatum as an antiviral source for restricting dengue virus entry. Sci Rep. 2020 Oct 2;10(1):16378.
- 7. Tai CJ, Liu CH, Pan YC, Wong SH, Tai CJ, Richardson CD, Lin LT\*. Chemovirotherapeutic Treatment Using Camptothecin Enhances Oncolytic Measles Virus-Mediated Killing of Breast Cancer Cells. Sci Rep. 2019 May 1;9(1):6767.
- 8. Lin CJ, Liu CH, Wang JY, Lin CC, Li YF, Richardson CD, Lin LT\*. Small molecules targeting coxsackievirus A16 capsid inactivate viral particles and prevent viral binding. Emerg Microbes Infect. 2018 Sep 26;7(1):162.
- 9. Liu CH, Lin CC, Hsu WC, Chung CY, Lin CC, Jassey A, Chang SP, Tai CJ, Tai CJ, Shields J, Richardson CD, Yen MH, Tyrrell DL, Lin LT\*. Highly bioavailable silibinin nanoparticles inhibit HCV infection. Gut. 2017 Oct;66(10):1853-1861.
- 10. Lin LT, Chung CY, Hsu WC, Chang SP, Hung TC, Shields J, Russell RS, Lin CC, Li CF, Yen MH, Tyrrell DL, Lin CC, Richardson CD. Saikosaponin b2 is a Naturally Occurring Terpenoid That Efficiently Inhibits Hepatitis C Virus Entry. J Hepatol. 2015 Mar;62(3):541-8.



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## **Speech Topic and Abstract**

Title: Targeting unmet needs in drug development through the Drug Discovery Consortium
Abstract:
Drug discovery is a multidisciplinary scientific process that involves the identification and development of new therapeutic compounds to address medical needs. It plays a pivotal role in advancing healthcare by providing innovative solutions to combat diseases, improve patient outcomes, and enhance overall well-being. The complexity of modern diseases demands collaborative efforts from researchers, scientists, and professionals across various disciplines to accelerate the drug discovery process.
The goal of drug discovery is to develop safe and effective treatments that improve patient outcomes through new technologies, methodologies, and approaches. From chronic conditions such as cancer to infectious diseases, the impact of successful drug discovery reverberates through improved quality of life and extended life expectancy. In particular, in the face of emerging infectious diseases and the re-emergence of existing threats, drug discovery is crucial for global health security. Rapid response to pandemics and other health crises relies on the availability of effective drugs.
To build a shared foundation and enhance research networking in tackling unmet needs in drug development, Taipei Medical University and the University of Cagliari established the Drug Discovery Consortium in 2023. As a continually growing and evolving international collaborative research network, the consortium aims to establish and nurture a sustainable and international research society. The goal is to bridge the gap between basic research, clinical practice, talent training, and knowledge translation as means to promote novel drug discovery and accelerate drug development.